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INFLUENZA

During the last week of November, an unusual incidence of acute upper respiratory infection was reported in California. Because of the mild nature of the attacks, the outbreak was not revealed by the official morbidity figures, but was first indicated by school absences and verbal reports. On December 5, Doctor Bertram P. Brown, State Director of Public Health, reported that laboratory tests indicated the epidemic to be influenza of type A, that it was affecting from 25 to 30 percent of the population in some localities, and that the highest incidence was in rural areas. A check of defense industries, however, revealed that 5 to 10 percent of the employees were absent because of the disease, and among approximately 25,000 personnel in the 11th Naval District there were 1,452 cases, giving an attack rate of about 6 percent for the period.

On December 10, Dr. John W. Oliphant, of the Public Health Service, reported that the epidemic was abating in San Diego and vicinity, but increasing slightly in Los Angeles and San Francisco, and that no unusual incidence of bronchopneumonia had been reported in any of the California cities.

A total of 9,663 cases of influenza was reported in the United States for the week ended December 7, as compared with 3,014 cases for the preceding week. California reported 6,772 cases, or 70 percent of the total. The incidence was lower in the northern and eastern States and highest in the western and southern areas.¹

SMALLPOX IN THE UNITED STATES: ITS DECLINE AND GEOGRAPHIC DISTRIBUTION

By C. C. DAUER, M. D., *Epidemiologist, District of Columbia Health Department*

In the 20-year period from 1900 to 1919 slightly more than three-quarters of a million cases of smallpox were reported in the United States, and in the two succeeding decades the number reported totaled nearly 700,000 cases, 75 percent of which occurred in the decade from 1920 to 1929. During the period from 1900 to 1919, inclusive, 11,435

¹ See pp. 2327-2328.

deaths from this disease were recorded, and from 1920 to 1939 the number fell to 5,337, 90 percent of which occurred from 1920 to 1929.

Coincident with this decline in morbidity and mortality there has been a progressive change in the type of smallpox seen in the United States during the past four decades, a change from a large proportion of severe cases with a relatively high mortality to a greater percentage of the mild type with a low mortality. This change was discussed in considerable detail by Chapin¹ in an excellent report published in 1932. Chapin stated that the mild or alastrim type of smallpox may have originated in South Africa and that it appeared in the United States in 1896. It apparently entered Florida, from which locality it spread rapidly to all parts of the country.

This change in type of smallpox is one of the reasons for the marked decrease in mortality from the disease observed in recent years. According to Chapin's figures the fatality rate was 3.6 percent for the 5-year period from 1900 to 1904, during which time it is estimated that the severe or classical form of the disease constituted about 12.5 percent of all the cases reported. According to these same data the fatality rate had declined to approximately 0.8 percent in the 5-year period 1925-29, when only 3.0 percent of the total cases were classified as the severe type. In the period from 1935 to 1939, inclusive, the fatality rate declined still more, to 0.34 percent, but the exact proportion of mild and severe cases is unknown for this period of time. For the 30-year period covered by Chapin's studies, 1900 to 1929, approximately one and one-quarter million cases of the mild type were reported in the United States with a fatality rate of 0.56 percent, and about 57,000 cases of the severe form with a fatality rate of 16.40 percent.

Chapin was of the opinion that the malignant and mild forms represented two separate strains of the smallpox virus, and, although exhibiting some variations, the mild form bred true with no evidence of reversion to the malignant form. However, both types have been reported in the same community at approximately the same time.

The periodicity of the outbreaks of smallpox in the United States is very evident, but in the past half century there has been no constant period of time between peaks of incidence. (See table 1.) Since 1900 there have been 8 fairly distinct periods extending over 1 or more years when cases of the disease were reported in comparatively large numbers. The most severe of these outbreaks in point of numbers of cases reported occurred in 1921 and 1922 when about 220,000 cases

¹ Chapin, C. V., and Smith, J.: Permanency of the mild type of smallpox. *J. Prev. Med.*, 6: 273-320 (1932).

were reported. The second largest was in 1901 and 1902 when about 135,000 cases were reported. In the States located in areas where smallpox has been most prevalent, 4 or 5 outbreaks, and in a few instances 6 outbreaks, have occurred during the past 20 years. The most recent outbreak occurred in 1937, 1938, and 1939, but the number of cases reported was small compared with previous outbreaks. A total of 36,489 cases and 118 deaths were recorded for this 3-year period with a fatality rate of 0.32 percent. This exceedingly low mortality is a clear indication of a predominantly mild form of the disease in recent years in this country.

Smallpox has shown very distinct regional differences in prevalence in this country ever since reasonably reliable data on numbers of cases have become available for a large proportion of the population. The incidence has been higher in the North Central States and west of the Mississippi River. These groups of States have continued to contribute most of the cases reported for the whole country. Except for sporadic cases or small isolated outbreaks the disease has practically disappeared from the New England, Middle Atlantic, and the northern tier of the South Atlantic States. The incidence in the remainder of the South Atlantic and East South Central States has also declined to a very low level in recent years.

As indicated in table 1 the incidence of smallpox in the United States remained fairly high until 1931, following which time it declined to a low level for several years. In the 5-year period from 1932 to 1936 the average number of cases for the whole country was 7,770. However, during these years of generally low incidence in the remainder of the country two States, Wisconsin and Minnesota, had severe outbreaks. Several other States had only a slight decrease in cases from 1932 to 1936 as compared with 1927 to 1931. Some increase in smallpox occurred in Wisconsin, Idaho, Colorado, and California in 1933. The following year the number of cases increased again in Wisconsin and also in Minnesota, South Dakota, and Washington. In 1935 some increase in the disease occurred in South Dakota, Nebraska, Kansas, Montana, Wyoming, and Washington; and during 1936 in Illinois, Iowa, Missouri, and North Dakota. The sudden increase in smallpox in 1937 and 1938 probably was the result of an extension of the disease from the localized outbreaks occurring in the years just prior to the 1937-38 outbreak.

In order to show in greater detail the geographical distribution of smallpox for the years 1937 to 1939 inclusive, the number of cases by counties was secured and the rates for each year are shown in figures 1, 2, and 3. It is very evident that the disease was not evenly spread in States which as a whole had high case rates during 1 or more years.

TABLE 1.—Smallpox in the United States, 1900-39

| Year | Number of cases ¹ | Number of deaths ¹ | Case fatality rate, percent | Year | Number of cases ¹ | Number of deaths ¹ | Case fatality rate, percent |
|------|------------------------------|-------------------------------|-----------------------------|------|------------------------------|-------------------------------|-----------------------------|
| 1900 | 21,064 | 894 | 4.24 | 1920 | 110,672 | 492 | .44 |
| 1901 | 62,374 | 1,376 | 2.20 | 1921 | 108,487 | 768 | .69 |
| 1902 | 72,946 | 2,510 | 3.44 | 1922 | 33,305 | 901 | 2.70 |
| 1903 | 52,737 | 1,580 | 2.99 | 1923 | 30,890 | 165 | .53 |
| 1904 | 31,697 | 1,282 | 4.04 | 1924 | 36,513 | 896 | 1.68 |
| 1905 | 19,417 | 406 | 2.09 | 1925 | 40,281 | 724 | 1.79 |
| 1906 | 15,223 | 90 | .59 | 1926 | 32,694 | 387 | 1.18 |
| 1907 | 18,977 | 96 | .50 | 1927 | 37,977 | 151 | .39 |
| 1908 | 33,998 | 108 | .31 | 1928 | 39,336 | 141 | .35 |
| 1909 | 23,560 | 155 | .66 | 1929 | 42,282 | 179 | .42 |
| 1910 | 31,254 | 429 | 1.37 | 1930 | 48,907 | 182 | .37 |
| 1911 | 23,044 | 174 | .75 | 1931 | 30,151 | 108 | .36 |
| 1912 | 23,566 | 305 | 1.29 | 1932 | 11,194 | 50 | .44 |
| 1913 | 38,400 | 259 | .67 | 1933 | 6,491 | 39 | .60 |
| 1914 | 40,474 | 216 | .53 | 1934 | 5,371 | 24 | .44 |
| 1915 | 38,381 | 247 | .64 | 1935 | 7,957 | 25 | .31 |
| 1916 | 19,740 | 247 | 1.25 | 1936 | 7,834 | 35 | .44 |
| 1917 | 47,508 | 320 | .67 | 1937 | 11,673 | 34 | .29 |
| 1918 | 80,334 | 414 | .51 | 1938 | 14,939 | 46 | .31 |
| 1919 | 62,876 | 327 | .52 | 1939 | 9,877 | 38 | .38 |

¹ Data from 1900 to 1928 from Chapin's report (loc. cit.). Data from 1929 to 1939 from supplements to Public Health Reports.

In 1937 Indiana, Illinois, Minnesota, Iowa, Missouri, North Dakota, Kansas, Montana, Idaho, and Oregon had comparatively high case rates but the rates were high only in localized groups of counties, particularly in the northwestern section of the country. Within these groups some counties had excessively high case rates. Four counties (1 in Missouri and 3 in Montana) had rates between 750 and 1,000 per 100,000 population; 5 counties (2 in Iowa and 1 each in Montana, Wyoming, and Oregon) had rates between 500 and 750; 39 counties were between 250 and 500; and 87 had 100 to 250 reported cases per 100,000 population. In several States a few isolated counties reported a large proportion of the total for the whole State. In Michigan and Ohio, 1 county in each State reported one-half and one-third, respectively, of the total.

As shown in figure 2, smallpox was more widely distributed in 1938 than in 1937, and comparatively large numbers of cases were reported in a large number of counties. The largest group of counties with excessively high rates was again located in the extreme northwestern section of the country. Widely scattered but smaller groups of counties mostly in the North Central States also reported the disease in excessive numbers. Two counties (1 each in Kentucky and Texas) had case rates in excess of 1,000 per 100,000 population; 4 counties (1 each in Colorado and Texas and 2 in Oregon) had rates between 750 and 1,000; the rates for 7 counties (1 in Wyoming and 2 each in Idaho, Montana, and South Dakota) ranged from 500 to 750; 42 had rates between 250 and 500; and 98 had rates between 100 and 250.

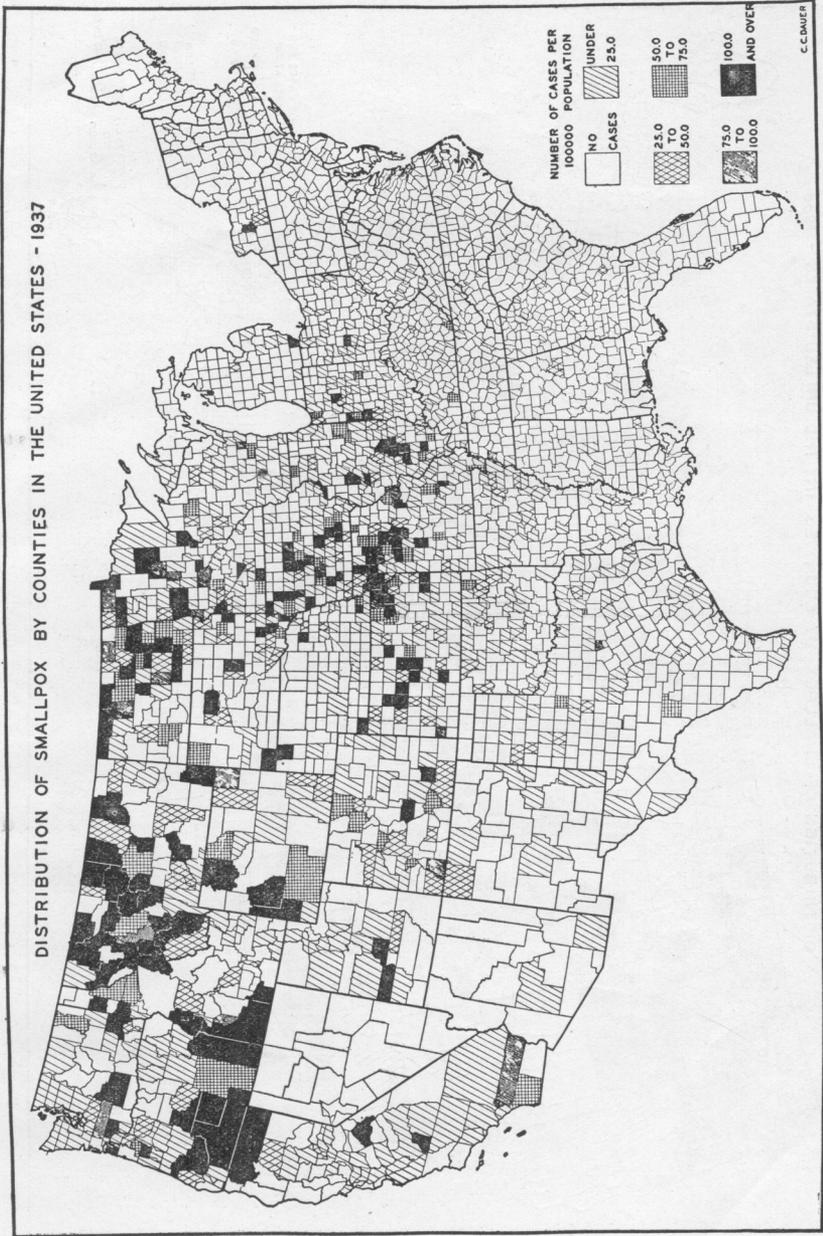


Figure 1.

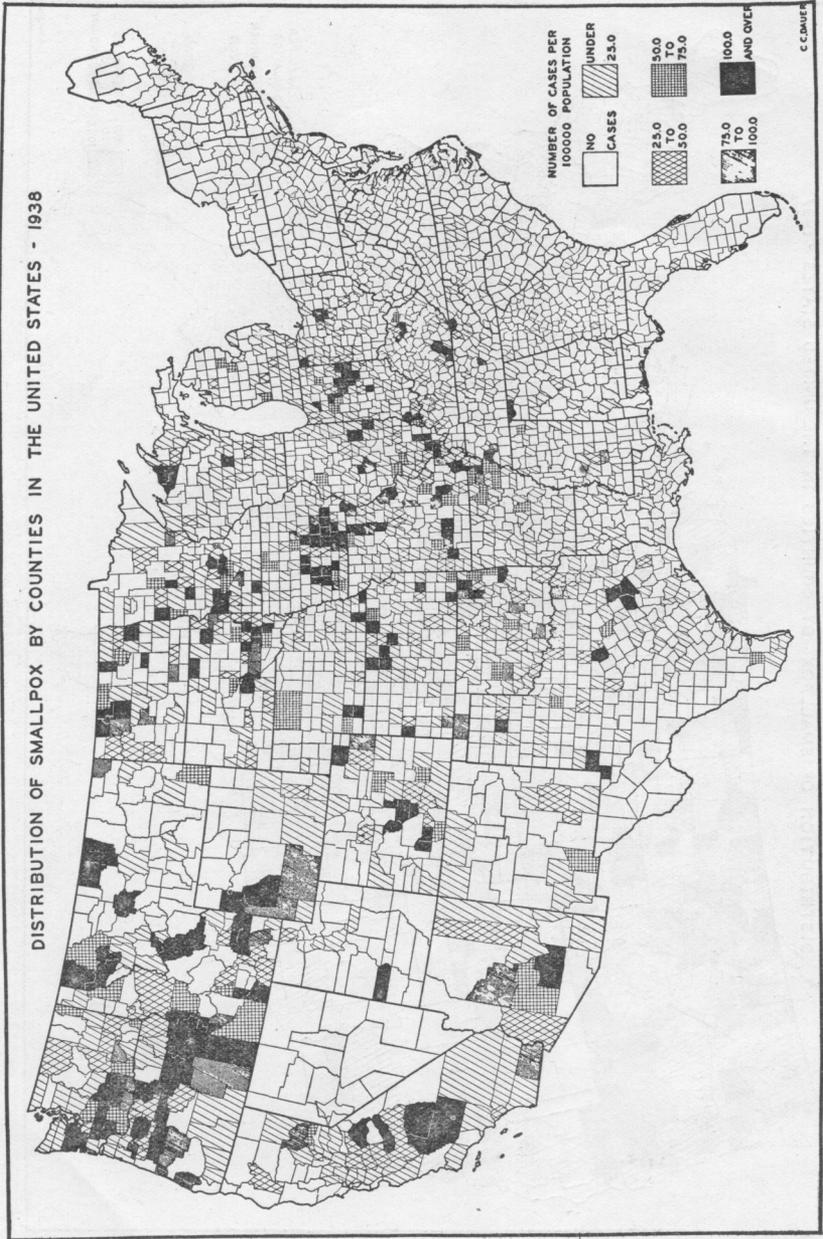


FIGURE 2.

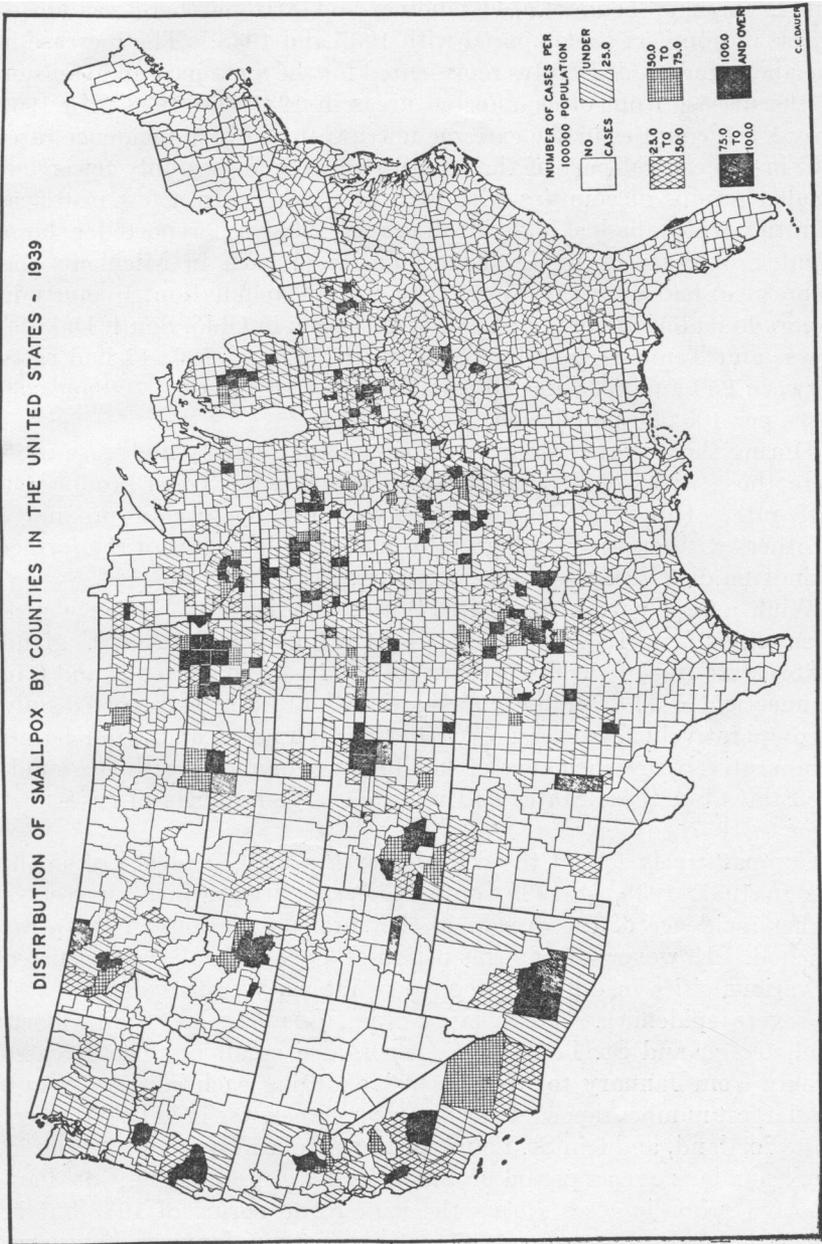


FIGURE 3.

In 1939 the number of cases of smallpox for the entire country decreased by about one-third as compared with 1938, but in Ohio, Michigan, Nebraska, Tennessee, Oklahoma, and Arizona there was an increase in numbers as compared with 1937 and 1938. The increase in the above-mentioned States represented for the most part an extension of the disease from other affected areas in 1937 and 1938. In 1939 only a few counties in the extreme northwest had high incidence rates and in the central part of the country there were not only fewer but smaller groups of counties with high case rates. In a few instances counties which had a high incidence in 1938 also reported a large number of cases in 1939. Two counties (1 each in Michigan and Tennessee) had over 1,000 cases per 100,000 population; 1 county in Colorado had a rate of 918; 4 counties (1 each in Ohio, South Dakota, Iowa, and Tennessee) had rates between 500 and 750; 17 had rates between 250 and 500; and 70 counties reported between 100 and 250 cases per 100,000 population.

During the 3 years certain counties with excessively high case rates were those with small populations in which a few cases produced a high rate. However, these counties were usually in close proximity to others with excessively high rates and the high rates of the former cannot be dismissed as chance occurrences.

While a large part of the United States experienced a high incidence of smallpox from 1937 to 1939, as described above, the New England States were free of the disease, except for 1 case in Vermont and 6 in Connecticut. The Middle and South Atlantic States reported only a comparatively few cases. Wisconsin, Nebraska, and Utah had a comparatively low incidence of smallpox as compared with surrounding States but these States had reported large numbers of cases just prior to 1937.

Comparatively few of the counties with a high incidence of smallpox in 1937, 1938, or 1939 contained large cities, which suggests a higher incidence of the disease in the rural populations of the areas affected. However, during this period of 3 years the disease occurred in various cities in different degrees of intensity from sporadic cases to severe epidemics. Three large cities, Los Angeles, Calif., Portland, Oreg., and St. Louis, Mo., reported a small number of cases weekly from January to May, inclusive, during each of the 3 years. The largest number reported during any one week was 12 in Los Angeles, 11 in Portland, and 6 in St. Louis. Minneapolis also reported cases in small numbers over a period of 3 months in 1938 and 1939. St. Paul reported sporadic cases during the winter and spring of 1937 but in large numbers in December 1937, and throughout January, February, and March of 1938. The largest number reported for any one week in St. Paul was 53 cases. Several cities for which records are available had outbreaks of considerable severity. In St. Joseph, Mo., cases

were reported for 24 consecutive weeks from December 1936 to June 1937, the greatest number being 58 for any single week. A total of 642 cases was reported, resulting in a case rate of 850 per 100,000 population. Boise, Idaho, reported 99 cases (case rate, 380) during a period of 21 weeks from January to May, inclusive, in 1937. In Indianapolis from October 1938 to June 1939, 530 cases (case rate, 138) occurred. During this period of 36 weeks cases were reported every week except one and the largest number in any one week was 57. A fairly severe outbreak also occurred in Aberdeen, S. Dak., in 1939 when 117 cases (case rate, 688) were reported over a period of 6 months from January to June, inclusive. Other cities in the North Central, West South Central, Mountain, and Pacific States reported varying numbers of smallpox cases over periods of a few weeks to several months during 1937, 1938, and 1939.

TABLE 2.—Average annual case rates, 1927–31 and 1932–36, and number of smallpox cases reported and case rates in 1937, 1938, and 1939, by States

| State | Average annual case rates per 100,000 population | | Number of cases reported | | | Case rates per 100,000 population | | |
|----------------------------|--|------------------|--------------------------|-------|-------|-----------------------------------|------|------------------|
| | 1927–31 | 1932–36 | 1937 | 1938 | 1939 | 1937 | 1938 | 1939 |
| New England: | | | | | | | | |
| Maine..... | 5.0 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Hampshire..... | 1.2 | .8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vermont..... | 37.0 | 14.0 | 1 | 0 | 0 | .3 | 0 | 0 |
| Massachusetts..... | 1.4 | .2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rhode Island..... | .2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut..... | 3.9 | 1.4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Middle Atlantic: | | | | | | | | |
| New York..... | 2.6 | .5 | 72 | 0 | 51 | .6 | 0 | .4 |
| New Jersey..... | .8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pennsylvania..... | .4 | .1 | 0 | 0 | 1 | 0 | 0 | (¹) |
| East North Central: | | | | | | | | |
| Ohio..... | 39.0 | 4.1 | 118 | 365 | 615 | 1.7 | 5.4 | 9.1 |
| Indiana..... | 124.0 | 4.3 | 601 | 1,559 | 1,445 | 17.9 | 45.0 | 42.0 |
| Illinois..... | 33.0 | 3.0 | 919 | 965 | 376 | 10.0 | 16.0 | 4.7 |
| Michigan..... | 35.0 | 1.6 | 152 | 274 | 371 | 3.2 | 5.7 | 7.8 |
| Wisconsin..... | 26.0 | 19.0 | 207 | 213 | 162 | 7.1 | 7.3 | 5.6 |
| West North Central: | | | | | | | | |
| Minnesota..... | 8.7 | 9.5 | 671 | 859 | 492 | 25.0 | 33.0 | 19.0 |
| Iowa..... | 84.0 | 24.0 | 1,316 | 1,170 | 1,057 | 52.0 | 46.0 | 42.0 |
| Missouri..... | 45.0 | 5.8 | 1,751 | 1,186 | 531 | 44.0 | 30.0 | 13.0 |
| North Dakota..... | 53.0 | 19.0 | 735 | 411 | 87 | 113.0 | 64.0 | 14.0 |
| South Dakota..... | 144.0 | 45.0 | 176 | 428 | 424 | 28.0 | 67.0 | 66.0 |
| Nebraska..... | 104.0 | 40.0 | 169 | 196 | 223 | 13.0 | 15.0 | 16.0 |
| Kansas..... | 115.0 | 18.0 | 604 | 513 | 199 | 32.0 | 27.0 | 11.0 |
| South Atlantic: | | | | | | | | |
| Delaware..... | .4 | .8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maryland..... | .5 | (¹) | 0 | 0 | 0 | 0 | 0 | 0 |
| District of Columbia..... | 3.2 | .3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Virginia..... | 17.0 | .5 | 6 | 5 | 0 | .2 | .2 | 0 |
| West Virginia..... | 49.0 | 1.7 | 18 | 8 | 26 | 1.0 | .4 | 1.4 |
| North Carolina..... | 34.0 | 1.0 | 11 | 35 | 15 | .3 | 1.0 | .4 |
| South Carolina..... | 14.0 | 1.1 | 15 | 4 | 5 | .6 | .2 | .2 |
| Georgia..... | 18.0 | .8 | 15 | 33 | 47 | .5 | 1.1 | 1.5 |
| Florida..... | 22.0 | .6 | 7 | 15 | 4 | .4 | .9 | .2 |
| East South Central: | | | | | | | | |
| Kentucky..... | 21.0 | 2.0 | 76 | 494 | 89 | 2.6 | 17.0 | 3.1 |
| Tennessee..... | 23.0 | 4.1 | 99 | 162 | 283 | 1.3 | 5.6 | 9.7 |
| Alabama..... | 18.0 | 4.3 | 48 | 75 | 26 | 1.7 | 2.7 | .9 |
| Mississippi..... | 23.0 | 7.2 | 23 | 116 | 11 | 1.1 | 5.3 | .5 |

¹ Less than 0.1.

TABLE 2.—Average annual case rates, 1927-31 and 1932-36, and number of smallpox cases reported and case rates in 1937, 1938, and 1939, by States—Continued

| State | Average annual case rates per 100,000 population | | Number of cases reported | | | Case rates per 100,000 population | | |
|----------------------------|--|------------|--------------------------|---------------|--------------|-----------------------------------|-------------|------------|
| | 1927-31 | 1932-36 | 1937 | 1938 | 1939 | 1937 | 1938 | 1939 |
| West South Central: | | | | | | | | |
| Arkansas..... | 20.0 | 7.5 | 97 | 245 | 136 | 4.8 | 12.0 | 6.7 |
| Louisiana..... | 19.0 | 3.1 | 19 | 20 | 14 | .9 | .9 | .7 |
| Oklahoma..... | 97.0 | 7.6 | 116 | 605 | 873 | 5.0 | 26.0 | 36.0 |
| Texas..... | 39.0 | 11.0 | 166 | 636 | 502 | 2.7 | 10.0 | 8.2 |
| Mountain: | | | | | | | | |
| Montana..... | 93.0 | 79.0 | 898 | 314 | 55 | 169.0 | 59.0 | 10.0 |
| Idaho..... | 138.0 | 37.0 | 371 | 543 | 132 | 77.0 | 112.0 | 25.0 |
| Wyoming..... | 85.0 | 56.0 | 160 | 57 | 23 | 66.0 | 23.0 | 9.7 |
| Colorado..... | 50.0 | 16.0 | 215 | 287 | 270 | 19.0 | 26.0 | 24.0 |
| New Mexico..... | 23.0 | 5.1 | 18 | 53 | 33 | 4.2 | 13.0 | 7.8 |
| Arizona..... | 60.0 | 2.4 | 4 | 181 | 241 | 1.0 | 45.0 | 60.0 |
| Utah..... | (?) | 19.0 | 51 | 29 | 17 | 9.3 | 5.3 | 3.1 |
| Nevada..... | (?) | 6.5 | 3 | 0 | 2 | 2.7 | 0 | 1.8 |
| Pacific: | | | | | | | | |
| Washington..... | 119.0 | 40.0 | 478 | 966 | 89 | 27.0 | 59.0 | 5.3 |
| Oregon..... | 123.0 | 26.0 | 630 | 651 | 236 | 58.0 | 60.0 | 20.0 |
| California..... | 33.0 | 7.6 | 697 | 1,266 | 708 | 12.0 | 21.0 | 12.0 |
| Total..... | 32.4 | 6.1 | 11,673 | 14,939 | 9,877 | 9.1 | 11.6 | 7.7 |

¹ Data not available.

The unenviable record of the United States with respect to the incidence of smallpox repeatedly has been pointed out in various reports. However, as previously stated in this paper, a large proportion of the cases reported in the past decade has occurred in the north central and northwestern sections of the country while in the eastern part of the United States the disease has practically vanished. In many of the States located in the latter area a large proportion of the population has been protected by a continuous program of vaccination year after year. It is a fact worth noting that where laws requiring vaccination for school attendance have been in force for a number of years smallpox has practically disappeared, while nearly all of the cases reported in recent years have occurred in the sections where there are no such laws.

QUALIFICATIONS OF PROFESSIONAL PUBLIC HEALTH PERSONNEL ¹

I. PLAN AND SCOPE OF THE SURVEY

By MAYHEW DERRYBERRY, *Senior Health Education Analyst*, and GEORGE CASWELL, *United States Public Health Service*

That a trained personnel is of paramount importance to the success of a public health program has been repeatedly pointed out in treatises, surveys, and studies of public health administration. Almost all of these have stressed the need for a better trained staff and

¹ From the Division of Public Health Methods, National Institute of Health.

recommended not only that health departments require new applicants to come better prepared but also that training in service be provided for those already employed. It is, however, only within recent years that any concerted action has been taken to put these recommendations into effect.

Perhaps the greatest impetus to this movement resulted from the provisions of Title V and Title VI of the Social Security Act and the more recent Venereal Disease Control Act,² both of which made available funds for training public health personnel. Two groups that have helped to give direction to the movement are the Committee on Professional Education of the American Public Health Association and the Committee on Professional Education and Qualifications of Public Health Personnel, representing the Conference of State and Territorial Health Officers. Prior to the passage of the Social Security Act, the Committee on Professional Education had assumed the responsibility of developing qualification standards and, to date, has outlined and published, with the approval of the Association, eight reports recommending minimum qualifications for various types of public health workers.

The Committee on Professional Education and Qualifications of Public Health Personnel was appointed in 1935 immediately after the Social Security Act went into effect. Its chief function has been to advise the Public Health Service in the distribution of training funds and to report annually through the Conference its recommendations as to minimum qualifications for newly appointed employees in official health departments. The recommendations of the two committees are almost identical, inasmuch as they have always worked in the closest harmony.

After desirable minimum qualifications had been set up, the two committees felt the need for objective information on the level of training and experience of existing personnel: To what extent do employees now in service meet the qualifications that have been set up? How much training must be given them before they reach the minimum qualification standards? How old are they and how much replacement must be expected? Answers to these and similar questions were needed to determine the future training needs for those now in service and those to be employed. Accordingly, the two committees joined in requesting the Surgeon General of the Public Health Service to undertake a study on the level of training and the amount of experience possessed by workers in official health departments. This paper is the first of a series reporting the findings of the resulting survey.

² Approved May 24, 1938.

PREVIOUS STUDIES

One of the early evidences of a growing appreciation of the need for trained public health employees to do a specialized job is found in the Health Survey of 86 Cities,³ in which the employment of a full-time trained health officer is called the foundation for effective health work in the community. The Survey, however, undertook only a limited analysis of the qualifications of the 86 health officers in the departments studied. Freeman⁴ surveyed a sampling of rural health departments as of 1929 and summarized the information available on training and experience of the health officers but made no mention of the training of other employees.

In 1930 the White House Conference on Child Health and Protection⁵ considered the problem of training of public health personnel and recommended increased facilities for instruction in public health as a specialized field, expansion of the curricula offered in medical schools generally, and better teaching of the subject matter in courses offered. In its report, analyzing the training and experience of over 3,600 physicians, nurses, and sanitarians in 548 health departments, the Conference came to the broad conclusion that "experience alone is still the route traveled by most public health workers."⁶ At the same time, significantly enough, the training of public health nurses, although described as unsatisfactory in some details, was declared to be on the whole better in relation to the demands of their position than that of physicians or sanitary engineers. Lay sanitary inspectors were reported as having little or no preparation for their work except that acquired through experience. It is implied that the training of sanitary engineers and veterinarians was somewhat more satisfactory than that of lay personnel.

The White House Conference recommended several somewhat tentative courses of action, prefaced with the explanation that, pending the adoption of educational standards by State health departments, such measures seemed advisable. As is well known, a number of the courses of action recommended in 1930 have subsequently been put into practice. Among the recommendations made may be cited the following: (a) The setting up, by various foundations, of fellowships and scholarships in public health for the benefit of those about to enter the field or those at work in it; (b) Federal consultation and assistance in training through loans of qualified instructors; (c) Federal grants-in-aid to State and local departments, conditional on their employment of approved profes-

³ Health Survey of 86 Cities. American Child Health Association, Research Division, New York, 1925.

⁴ Freeman, Allen W.: A Study of Rural Public Health Service. The Commonwealth Fund, New York, 1933.

⁵ Public Health Organization, vol. IIA, Reports of the White House Conference on Child Health and Protection. The Century Co., New York, 1932.

⁶ Op. cit., p. 265.

UNITED STATES PUBLIC HEALTH SERVICE
Washington, D. C.

Leave this space blank

1. NAME _____ 2. YEAR OF BIRTH _____

3. PLACE OF BIRTH _____
City or county _____ State or foreign country _____

4. SEX: Male Female 5. RACE: white Negro Other _____

6. PRESENT PROFESSIONAL STATUS: Physician Professional Engineer

Nurse Sanitarian or Inspector Other _____
(specify)

7. OFFICIAL TITLE OF PRESENT POSITION _____

8. OFFICIAL NAME AND ADDRESS OF EMPLOYING ORGANIZATION _____

9. ADDRESS OF OFFICIAL STATION: _____
City or county _____ State _____

10. IS PRESENT POSITION CLASSIFIED UNDER CIVIL SERVICE? Yes No

11. NUMBER OF YEARS EMPLOYED IN PRESENT POSITION: Full-time _____ years
Part-time _____ years
Total _____ years

12. CLASSIFICATION OF PRESENT POSITION: Executive Sub-executive Staff

EXECUTIVE includes health officers, deputy health officers, division chiefs, and others occupying positions of MAJOR ADMINISTRATIVE RESPONSIBILITY.

SUB-EXECUTIVE includes supervisors, section heads, and others SUBORDINATE TO THE EXECUTIVE.

STAFF includes employees who have NO ADMINISTRATIVE RESPONSIBILITY.

13. INDICATE YOUR EDUCATIONAL ACHIEVEMENT IN THE BLANKS BELOW:

In the second column circle the number of years of full-time resident work or its equivalent. Enter the number of months, if less than one full ACADEMIC year (two semesters or three quarters).

In the third column, circle each appropriate response. Explain whenever the response is OTHER.

| Educational achievement | Period of study | | Graduation, registration and degrees conferred | |
|--|-----------------|--------------------------|--|--|
| | No. of yrs. | No. of mos. | | |
| (a) High school | 1 2 3 4 | <input type="checkbox"/> | Not graduated | Graduated |
| (b) College (undergraduate) | 1 2 3 4 | <input type="checkbox"/> | No degree | AB BS OTHER (specify) |
| (c) College (graduate but not definitely professional) | 1 2 3 4 | <input type="checkbox"/> | No degree | MA MS PhD DSc OTHER (specify) |
| (d) Professional school, other than Nursing or Public Health | 1 2 3 4 | <input type="checkbox"/> | No degree | MD CE SE ME DVM DVS DDS OTHER (specify) |
| (e) Nursing School | 1 2 3 4 | <input type="checkbox"/> | State registration: Yes No | |
| (f) Graduate School in Public Health under University auspices | 1 2 3 4 | <input type="checkbox"/> | DrPH MPH CPH | Degree with major in Public Health: MS PhD DSc OTHER (specify) |
| (g) Special courses in Public Health not covered above | | | No Yes | Explain under "Remarks" |
| (h) Post-graduate Medical Training or special Hospital connections | | | No Yes | Explain under "Remarks" |
| 14. LIST DEGREES, CERTIFICATES, OR REGISTRATIONS CIRCLED ABOVE AND GIVE THE DATE EACH WAS GRANTED. Example: If you received a degree of Master of Arts in 1931, list MA in the first column and the year 1931 in the second. | Degree | Date conferred | | |
| | | | | |
| | | | | |
| | | | | |

FIGURE 1.—Schedule form (front).

sional personnel; and (d) the use of the resources peculiar to the Federal medical service in training. Furthermore, State health departments were advised to require definite educational qualifications for professional personnel, and to enforce them, if need be, by a licensing system or refusal of State subsidy to local departments.

The National Organization for Public Health Nursing⁷ in 1934, and Marian Randall⁸ in 1937 for the Organization, conducted surveys in a sampling of nursing organizations and pointed out the necessity for not only an inventory of the educational status of currently employed public health workers but also positive action toward the improvement of the conditions found. Livingston Farrand in his foreword to the earlier survey speaks of the lack of training as an obstacle to advance in the whole field.

THE PRESENT SURVEY—COLLECTION OF DATA

The present survey, begun in July 1938, had as one of its objectives, therefore, a comprehensive inventory of the educational attainment and experience of currently employed full-time professional workers in official health departments. The most practical method of collecting the desired information was by questionnaires, submitted directly to the individuals concerned. Thus, it was planned, for the first time since 1930, to secure data from all jurisdictions under full-time direction and from all classes of professional personnel.

Accordingly, a schedule (see figs. 1 and 2) was devised, requesting, from each individual, information on age, sex, color, official position, employing jurisdiction, educational attainment (including degrees, certificates, and other academic or professional distinctions held), and full employment history. When letters and copies of the schedule were sent to all State and territorial health officers to request their cooperation in collecting the data, the response was gratifyingly prompt and enthusiastic.

Early in August 1938, the State and territorial health officers were sent supplies of the questionnaires for their departments and were asked whether they would distribute blanks to local health departments or authorize the Public Health Service to do so. Most of the States chose the latter alternative and questionnaires were sent from Washington to the local health officers, with the request that the forms be distributed and, when complete, returned as a group. Data were requested only from full-time professional employees working in other than institutional positions.

⁷ Survey of Public Health Nursing by the National Organization for Public Health Nursing. The Commonwealth Fund, New York, 1934.

⁸ Personnel Policies in Public Health Nursing, prepared for the Committee on Personnel Practices in Official Agencies of the National Organization for Public Health Nursing by Marian G. Randall. Macmillan, New York, 1937.

COVERAGE

By January 1, 1939, when final returns had been received from the field, out of 1,148 jurisdictions canvassed, 1,114 had submitted schedules. This number is 97 percent of the State, county (or district), and city health departments with full-time health officers, known to be in operation as of October 1, 1938. In the few instances in which the position of health officer was vacant, the jurisdiction was included if the vacancy was a full-time position and the unit had other professional personnel.

Final returns include schedules from the 52 State and territorial health departments,⁹ from 99.6 percent of the organized counties and districts, and from 89.1 percent of the cities under full-time direction. Of the 31 cities failing to respond, three had populations (1930) of 100,000 or more; the remaining 28 were mainly small jurisdictions in the eastern States with health departments having lay secretaries or nonmedical health officers but rarely full-time professional staffs.

A total of 18,800 individual schedules were submitted; but among that number about 2,100 came from employees who were (a) not full-time workers; (b) paid from emergency funds; (c) employed full-time in institutions; or (d) nonprofessional. After eliminating these four classes of schedules, the remaining 16,670 that were in accord with the original plans for the survey were analyzed. It is estimated that the data analyzed cover 95 percent of the full-time professional personnel employed in official full-time health departments in the United States and its possessions.

Table 1 shows the distribution of jurisdictions reporting, by State and type of jurisdiction, and the number of schedules analyzed for each State. Of the departments in the 808 county and district jurisdictions, 537 (66.5 percent) are single-county units serving the entire population; 69 (8.5 percent) are single-county units in counties with one or more separate city departments serving a part of the population. The remainder are district units serving more than one county. Among district units, 65 serve two; 45, three, and 74, four or more counties each. Sixteen others are not classified because they serve areas not made up entirely of whole counties but of other minor political divisions and combinations of such divisions. Among city jurisdictions, 13 of the 254 departments serve populations (1930) of 500,000 or more; none serves a city population under 10,000. The distribution of city departments according to population served is as follows:

⁹ Throughout the survey the District of Columbia is treated as a State.

| <i>City population</i> | <i>Number of health departments in survey</i> |
|------------------------|---|
| 10,000-19,999----- | 65 |
| 20,000-29,999----- | 37 |
| 30,000-49,999----- | 39 |
| 50,000-74,999----- | 30 |
| 75,000-99,999----- | 17 |
| 100,000-249,999----- | 34 |
| 250,000-499,999----- | 19 |
| 500,000-999,999----- | 8 |
| 1,000,000 or more----- | 5 |

ANALYSIS OF THE DATA

Preliminary examination, follow-up on incomplete returns, editing, coding, and other processing of schedules were done with the aid of a grant from the Works Progress Administration with which a processing unit was conducted in Philadelphia.¹⁰ The work was done under the supervision of the Public Health Service staff and each process was carefully checked to insure accuracy of performance. Final analysis was completed in the National Institute of Health.

As schedules were received, they were examined for completeness and those believed to be deficient in reporting employment history, educational attainment, professional status, or length of time in positions held (especially the present position) were returned to the field for further information. The most common deficiency was failure to report complete employment history. Individuals often reported only their health department or public health employment. In some cases the original schedule had not included periods of unemployment; as a whole, errors or omissions in reporting were due to misinterpretation of the intent of the schedule.

After the schedules from each jurisdiction had been checked in the manner indicated, the personnel represented by the schedules were classified according to the professional functions they perform and the editing and coding were based on this classification, especially insofar as training and experience data are concerned. Table 2 gives the distribution of schedules analyzed, by professional classification and employing jurisdiction. It will be noted that the major groups are the medical, nursing, sanitation, and laboratory personnel, with the largest group, nursing, making up almost half the total. By jurisdiction, almost half the schedules are from cities, a third from counties, and the remainder from State health departments.

¹⁰ Grateful acknowledgment is made for the cooperation of the Works Progress Administration and State and local health officers and members of their staffs throughout the country. The present survey would have been impossible without the assistance of all who cooperated to make the coverage practically complete. The clerical labor of processing could not have been undertaken without the assistance of the Works Progress Administration grant.

TABLE 1.—Response to personnel questionnaire, by States and types of jurisdictions canvassed

| State | Full-time jurisdictions from which— | | | | | | Percentage of jurisdictions responding | Total usable schedules from all jurisdictions |
|--|-------------------------------------|-----------------------|--------|--------------------|-----------------------|--------|--|---|
| | Data were requested | | | Data were received | | | | |
| | Total ¹ | Counties ² | Cities | Total ¹ | Counties ² | Cities | | |
| Total..... | 1, 148 | 811 | 285 | 1, 114 | 808 | 254 | 97. 0 | 16, 670 |
| Alabama..... | 68 | 67 | ----- | 68 | 67 | ----- | 100. 0 | 431 |
| Alaska..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 20 |
| Arizona..... | 6 | 5 | ----- | 6 | 5 | ----- | 100. 0 | 61 |
| Arkansas..... | 31 | 29 | 1 | 31 | 29 | 1 | 100. 0 | 154 |
| California..... | 37 | 22 | 14 | 34 | 21 | 12 | 91. 9 | 1, 353 |
| Colorado..... | 4 | ----- | 3 | 4 | ----- | 3 | 100. 0 | 148 |
| Connecticut..... | 9 | ----- | 8 | 9 | ----- | 8 | 100. 0 | 226 |
| Delaware..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 65 |
| District of Columbia..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 154 |
| Florida..... | 18 | 14 | 3 | 18 | 14 | 3 | 100. 0 | 222 |
| Georgia..... | 49 | 46 | 2 | 48 | 45 | 2 | 98. 0 | 346 |
| Hawaii..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 128 |
| Idaho..... | 7 | 4 | 2 | 6 | 4 | ----- | 71. 4 | 58 |
| Illinois..... | 28 | 15 | 12 | 28 | 15 | 12 | 100. 0 | 836 |
| Indiana..... | 8 | 6 | 1 | 7 | 6 | ----- | 87. 5 | 124 |
| Iowa..... | 9 | 7 | 1 | 9 | 7 | 1 | 100. 0 | 85 |
| Kansas..... | 7 | 4 | 2 | 7 | 4 | 2 | 100. 0 | 98 |
| Kentucky..... | 77 | 75 | 1 | 77 | 75 | 1 | 100. 0 | 405 |
| Louisiana..... | 39 | 38 | ----- | 39 | 38 | ----- | 100. 0 | 199 |
| Maine..... | 14 | 7 | 6 | 14 | 7 | 6 | 100. 0 | 80 |
| Maryland..... | 25 | 23 | 1 | 25 | 23 | 1 | 100. 0 | 404 |
| Massachusetts..... | 46 | 4 | 41 | 42 | 4 | 37 | 91. 3 | 668 |
| Michigan..... | 48 | 36 | 11 | 47 | 35 | 11 | 97. 9 | 1, 002 |
| Minnesota..... | 10 | 5 | 4 | 10 | 5 | 4 | 100. 0 | 170 |
| Mississippi..... | 32 | 31 | ----- | 32 | 31 | ----- | 100. 0 | 233 |
| Missouri..... | 25 | 18 | 6 | 21 | 18 | 2 | 84. 0 | 360 |
| Montana..... | 4 | 3 | ----- | 4 | 3 | ----- | 100. 0 | 38 |
| Nebraska..... | 6 | 4 | 1 | 6 | 4 | 1 | 100. 0 | 56 |
| Nevada..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 19 |
| New Hampshire..... | 6 | ----- | 5 | 5 | ----- | 4 | 83. 3 | 63 |
| New Jersey..... | 30 | 29 | ----- | 29 | ----- | 28 | 96. 7 | 660 |
| New Mexico..... | 11 | 10 | ----- | 11 | 10 | ----- | 100. 0 | 98 |
| New York..... | 40 | 26 | 13 | 40 | 26 | 13 | 100. 0 | 2, 527 |
| North Carolina..... | 59 | 52 | 6 | 59 | 52 | 6 | 100. 0 | 528 |
| North Dakota..... | 3 | 1 | 1 | 3 | 1 | 1 | 100. 0 | 24 |
| Ohio..... | 65 | 48 | 16 | 65 | 48 | 16 | 100. 0 | 802 |
| Oklahoma..... | 18 | 17 | ----- | 18 | 17 | ----- | 100. 0 | 137 |
| Oregon..... | 15 | 13 | 1 | 15 | 13 | 1 | 100. 0 | 133 |
| Pennsylvania..... | 55 | ----- | 54 | 44 | ----- | 43 | 80. 0 | 724 |
| Puerto Rico..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 473 |
| Rhode Island..... | 6 | 3 | 2 | 6 | 3 | 2 | 100. 0 | 97 |
| South Carolina..... | 39 | 32 | 6 | 36 | 32 | 3 | 92. 3 | 206 |
| South Dakota..... | 8 | 7 | ----- | 8 | 7 | ----- | 100. 0 | 55 |
| Tennessee..... | 43 | 39 | 3 | 43 | 39 | 3 | 100. 0 | 419 |
| Texas..... | 26 | 19 | 6 | 25 | 19 | 5 | 96. 2 | 519 |
| Utah..... | 7 | 6 | ----- | 7 | 6 | ----- | 100. 0 | 83 |
| Vermont..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 22 |
| Virginia..... | 38 | 29 | 8 | 37 | 29 | 7 | 97. 4 | 300 |
| Washington..... | 17 | 14 | 2 | 17 | 14 | 2 | 100. 0 | 218 |
| West Virginia..... | 23 | 20 | 2 | 23 | 20 | 2 | 100. 0 | 127 |
| Wisconsin..... | 24 | 12 | 11 | 24 | 12 | 11 | 100. 0 | 308 |
| Wyoming..... | 1 | ----- | ----- | 1 | ----- | ----- | 100. 0 | 14 |
| Percentage of counties responding..... | ----- | ----- | ----- | ----- | ----- | ----- | 99. 6 | ----- |
| Percentage of cities responding..... | ----- | ----- | ----- | ----- | ----- | ----- | 89. 1 | ----- |

¹ Includes State health departments, all of which responded.

² Includes districts, whether made up entirely of whole counties or otherwise.

For each of the four major classifications of personnel, i. e., medical, nursing, sanitation, and laboratory workers, subsequent papers will present the levels of educational attainment both in academic training and in public health, and an analysis of employment history. These facts will be shown separately for administrators and staff employees and by jurisdiction when significant differences between the three

TABLE 2.—*Response to personnel questionnaire, by professional classification¹ of personnel and type of jurisdiction*

| Professional classification | Total | | Type of jurisdiction | | | | | |
|--|---------|---------|----------------------|---------|--------------------|---------|--------|---------|
| | Number | Percent | State | | County or district | | City | |
| | | | Number | Percent | Number | Percent | Number | Percent |
| Total..... | 16, 670 | 100. 0 | 3, 845 | 100. 0 | 5, 259 | 100. 0 | 7, 566 | 100. 0 |
| Medical..... | 1, 956 | 11. 7 | 487 | 12. 7 | 951 | 18. 1 | 518 | 6. 8 |
| Nursing..... | 7, 931 | 47. 6 | 1, 186 | 30. 9 | 2, 864 | 54. 5 | 3, 881 | 51. 3 |
| Sanitation..... | 4, 443 | 26. 7 | 1, 017 | 26. 4 | 1, 211 | 23. 0 | 2, 215 | 29. 3 |
| Laboratory..... | 1, 291 | 7. 7 | 705 | 18. 3 | 111 | 2. 1 | 475 | 6. 3 |
| All others..... | 1, 049 | 6. 3 | 450 | 11. 7 | 122 | 2. 3 | 477 | 6. 3 |
| Percentage of total schedules. Jurisdictions represented..... | 1, 114 | 100. 0 | 52 | 23. 1 | 808 | 31. 5 | 254 | 45. 4 |
| Percentage of total canvassed..... | | 97. 0 | | 100. 0 | | 99. 6 | | 89. 1 |

¹ By function, rather than training; e.g., a physician directing a sanitary corps is tabulated as a sanitation worker.

types of jurisdictions are found. The reports to follow will carry the following titles: Qualifications of Health Officers and Other Medical Personnel, Qualifications of Nurses, Qualifications of Sanitation Personnel, and Qualifications of Laboratory Workers.

WASHING FACILITIES FOR FOOD HANDLERS ON SHIPS

Report of a Survey

By G. C. SHERRARD, *Acting Assistant Surgeon, United States Public Health Service*

The quarantine histories of vessels arriving at the port of New York during recent years show a frequent incidence of intestinal disturbances among passengers and crews. These infections appear to have occurred mainly among persons on passenger vessels having large personnels in the stewards' departments. Both passengers and crew have been afflicted in about equal proportion to their numbers, indicating a common source of infection. The epidemiological investigations of these cases have directed suspicion to food handlers as the possible sources of infection.

The necessity for cleanliness in the handling and preparation of food is obvious. If, as often happens, cracked ice, salads, and sandwich material, to mention a few articles, are handled with soiled hands, there is considerable possibility of transferring infection to persons consuming such food and drink. If, on the other hand, a food handler washed his hands thoroughly after leaving the toilet or after other contamination and before handling food and drink, there is less likelihood of causing illness among the consumers.

However, to insure clean hands there must be convenient and reasonably adequate washing facilities. Therefore, when gastrointestinal diseases were frequently encountered on vessels arriving in New York, it was believed that faulty food handling and lack of cleanliness, at least, might be suspected of being contributing factors.

At the suggestion of Dr. Robert Olesen, chief quarantine officer for the port of New York, a survey was made of a sufficient number of vessels engaged in commercial trade to give an approximate indication of the kind and extent of the facilities provided for washing and cleansing the hands of those concerned with the handling of foods.

The surveys of washing facilities were made by sanitary inspectors attached to the quarantine station, under instructions from officers familiar with the internal arrangements of vessels and the general requirements for insuring hand cleanliness. However, in many instances, the findings represent individual judgments which may not coincide, but it is believed that the percentage of error from this source is small and does not seriously disturb the general result. At times, because of crew changes or crew absence while the survey was being made, it was difficult to obtain accurate information as to the location and type of washing facilities. However, here again, only an insignificant error could have resulted. The data obtained during the survey are presented in table 1.

TABLE 1.—Number and location of washing facilities, towels, and soap on 240 American and 394 foreign vessels inspected in New York ¹

| Kind of facilities | Location of facilities | | | | | |
|-----------------------|------------------------|--------|----------|-----------------|--------|----------|
| | American vessels | | | Foreign vessels | | |
| | Pantry | Galley | Quarters | Pantry | Galley | Quarters |
| Running water: | | | | | | |
| Hot and cold..... | 97 | 109 | 109 | 75 | 83 | 47 |
| Cold only..... | 82 | 75 | 71 | 111 | 110 | 106 |
| None..... | 61 | 56 | 60 | 208 | 201 | 241 |
| Hand towels: | | | | | | |
| Individual..... | 85 | 77 | 187 | 156 | 146 | 319 |
| Common..... | 22 | 24 | 7 | 42 | 31 | 20 |
| None..... | 133 | 150 | 31 | 196 | 217 | 39 |
| Hand soap: | | | | | | |
| Present..... | 160 | 158 | 194 | 244 | 236 | 295 |
| None..... | 80 | 73 | 31 | 150 | 158 | 87 |

¹ Figures for hand towels and soap in galleys and pantries do not include a few vessels for which data were not obtainable; therefore these totals are less than that of the total number of ships surveyed.

Conveniently located hot and cold running water is a most important requisite for cleansing hands. Reference to the table shows that of the 240 American vessels surveyed only 97, or 40 percent, have such facilities in pantries for the use of food handlers. The percentage of vessels having like facilities in the galleys and quarters is only slightly greater. Of the 394 foreign vessels surveyed, both hot and cold run-

ning water was available in the pantries of only 19 percent of the vessels, in the galleys of 21 percent, and in the food handlers' quarters of 12 percent. Thus, it will be seen that approximately 60 percent of the American and 80 percent of foreign vessels are lacking in the most important facility for the cleansing of hands. In addition to the lack of cold and hot running water, the survey shows that approximately 25 percent of American and 50 percent of foreign vessels have no running water available in at least one of their food-handling compartments, it being necessary to carry water from an outside source into the galley and pantry. In the great majority of those cases in which running water was present in food-handling compartments, the installations were designed for washing dishes and utensils and not for the separate washing of hands.

In the matter of hand towels deficiencies were also noted, as this item was found to be lacking in the galleys or pantries of slightly over one-half of both American and foreign vessels. On these vessels, when hands became wet, the food handlers used either the drying cloths provided for dishes or their not too clean aprons and trousers. It might be argued that from a sanitary viewpoint hand towels are not essential, but experience has shown that unless towels are provided there is a reluctance to wash.

With regard to hand soap, this item was found present in more instances than were the other facilities, and when not present there was usually a substitute in the form of dishwashing powder. In this connection, the main weakness from a sanitary point of view appeared to be the lack of a convenient fixture or container for the soap, which would attract attention and thus promote its use.

From the tabulated data it will be seen that a large proportion of ships are woefully lacking in facilities for the personal cleanliness and sanitation of those members of the crew who prepare and handle foods in the galleys and pantries.

A separate tabulation has been made of American vessels for the purpose of comparison and to obtain data upon which corrective measures can be based. From this tabulation it will be seen that while American ships compare very favorably with foreign ships in the matter of sanitary facilities, their status is only relatively better.

In addition to the many ships having no provisions for running water, soap, basins, and individual towels in compartments where foods are prepared and served, there appears to be an almost total lack of understanding on the part of food handlers as to the value or necessity of hand cleanliness. In fact, it may be said that educational measures along this line appear to have been neglected both by the shipping interests concerned and public health authorities.

Unless suitable sanitary facilities are provided for food handlers, together with proper training in, and enforcement of, approved sani-

tary measures, it is logical to assume that passenger ships with a large culinary personnel afford a greater hazard for the transmission of intestinal infections through the medium of food handlers than ships with relatively few who are engaged in handling foods. A history of gastrointestinal infections occurring on ships entering the port of New York confirms this supposition, most of the cases having occurred on passenger vessels.

Because of the absence of sanitary facilities and instruction of personnel in hygiene, it must be assumed that the path between ships' toilets and table food is frequently lacking in sanitary barriers. For the correction of this defect three general measures are suggested.

1. The installation of adequate and conveniently located washing facilities in galleys, pantries, and food-handlers' quarters on new ships during construction.

2. The installation of like facilities especially in the galley and pantry, on ships already in operation but which do not now provide such facilities, due consideration being given to the economic aspects, especially as regards the type of vessel and trade in which it is engaged.

3. The education of owners, operators, officers, and crews of vessels relative to sanitary precautions to be taken by food handlers, and the hazards to health when such precautions are neglected. Special emphasis should be placed on the esthetic aspects of the subject.

With regard to the equipping of new vessels with proper sanitary facilities for food handlers, this can most easily be accomplished by the ratproofing division of the United States Public Health Service when ratproofing measures are undertaken. On old vessels the problem is much more difficult, as the cost, suitable space, number of passengers and crew carried, together with the remaining economic aspects, must all be considered. On these ships the work could be more advantageously supervised by sanitary inspectors at the various quarantine stations.

Once the proper sanitary facilities are installed, the problem resolves itself into insuring their intelligent use by those concerned. This can be done by a gradual and persistent sanitary education of both the handler and consumer of foods. If the regular consumers of foods on board ship (officers especially) are informed as to the possible insanitary chain of events extending from toilets to dinner table, they are going to be more observant as to the sanitary precautions taken. Likewise, the owners and operators of ships will be more apt to approve reasonable expenditures for new installations when informed of the possible expense and loss of ships' time resulting from illness due to the lack of proper sanitary facilities. By no means the least concern of ship's operators is the strong possibility of legal suits being brought by persons who allegedly became ill as the result of faulty food handling.

On American ships the galley and pantry personnel are in a continual process of change from shore to ship and vice versa, and for

this reason the intensive medical examination of food handlers at intervals sufficiently frequent to prevent the transmission of intestinal infections appears impractical. The logical method of approach would seem to be along the lines of sanitary education, supervision, and provision for sanitary facilities at strategic locations on board ships.

Progress along the sanitary lines herein outlined has already been made. The Naval Architect of the Public Health Service, the Maritime Commission, and private shipbuilders are cooperating by including sanitary specifications in the design of new ships. Through the efforts of the sanitary inspectors employed at the New York Quarantine Station, new washing facilities are being installed on some of the ships already in service. These installations are the result of inspections, recommendations, and instruction given while such ships are undergoing overhaul and repair. In addition, the necessity for cleanliness in handling foods is explained at every opportunity. This line of activity apparently has fruitful possibilities.

A STUDY OF MEDICAL PROBLEMS ASSOCIATED WITH TRANSIENTS¹

A Review

In the category of "transients" are the thousands of needy persons who, through the application of residence and technically related requirements, are discriminated against in programs of material aid and public medical care. They are the uncounted individuals, variously estimated at 200,000 to 1,000,000, who are "on the road" and who are unable to procure without assistance the necessities of life.

The study reported here is limited to the continental United States and is concerned with the health problems associated with transients as they are affected by the mode of life and social opportunities of these persons. The study attempts to determine: (1) The origin of transiency from migration and the importance of lack of health as a cause, (2) the statutory limitations on public assistance to transients, (3) the administrative practices of agencies giving assistance to transients, (4) the medical needs of transients, (5) the influence of transients on community health, and (6) the most equitable and practical solution of the medical problems of transients and transiency.

Varied sources of material were resorted to in the preparation of the report. Besides the information drawn from a considerable body of documentary matter, original data are also presented which were derived from: (a) About 11,000 schedules of some 16,000 transients who applied for public assistance in 20 cities of 15 States, (b) 432 schedules

¹ Public Health Bulletin No. 258. A Study of Medical Problems Associated with Transients. By Charles F. Blankenship and Fred Saifer. Government Printing Office, Washington, 1940. Available from the Superintendent of Documents, Washington, D. C., at 25 cents per copy.

on the admission policies of public assistance agencies in the same cities, (c) records of application of 1,488 transients for in-patient care at a large charity hospital, (d) serological reactions of 1,170 inmates of a large municipal shelter for homeless men, (e) results of chest X-ray examinations of transients in 19 cotton camps in a southwestern State, and (f) replies from 42 local governmental and nonprofit association general hospitals in California to a questionnaire concerning the number of transients hospitalized during a year.

Migration, an outstanding characteristic of the United States, produces not only demographic effects, in that the age, sex, and race compositions of populations are materially influenced, but also gives rise to a number of effects on social organization, particularly on community, family, and individual adjustment. It is in the failure of individuals to orient themselves properly to new environments, especially in their failure to maintain or secure economic self-sufficiency, that transiency arises. Transiency is, in effect, the pathology of migration.

Motives for interstate and for intrastate migration are somewhat different. Desire for economic improvement prompts in large measure the movement of interstate transients; need for medical care impels to a considerable extent the intrastate migrants. Those who cross State borders in search of health do so, in the main, for pulmonary conditions, usually tuberculosis, which often lead them toward the Southwest and its reputedly salubrious climate.

Of those interviewed, about 70 percent of the families and 77 percent of the unattached had been migrants for less than 1 year, while among those who had been migrants for as long as 2 years, practically all of the family cases and more than nine-tenths of the unattached had lived in the State of interview 1 year or more. In view of these facts, it is probable that approximately three-fourths of the interstate transient group is made up of families and individuals who have not adopted for themselves a life of migration but who are in the process of relocation.

The means whereby legal discrimination against transients is effected lie in the so-called "poor laws," traceable to feudalism in England, which the majority of the States have among their statutes. Associated with them are laws relating to acquisitions of settlement, loss of settlement, and provision of relief for nonresidents. Peculiar to individual States, these laws are, on the whole, ill adapted to the existing economy. Furthermore, discrimination against the transient is inherent in the practices of public assistance agencies that grant social and medical care to transients. Almost half of all governmental as well as nongovernmental agencies in States with settlement laws have stricter settlement requirements than the law provides. Since it is true that almost two-thirds of the agencies giving medical care to transients restrict care to either emergency or selected cases,

the difficulties facing the transient who requires public medical care are at once apparent.

Transients, either interstate or intrastate, have considerably more disabling illness than persons who have resided in communities long enough and under such conditions as to have the status of residents. Intrastate transients have even higher disabling illness rates than have the interstate. It is possible that this difference is due to the greater proportionate migration of interstate transients to cities in search of public medical care which they do not believe is available to them at home in smaller communities. Among all interstate transients the most recent migrants have the least number of disabling illnesses and, as migration continues, the incidence of disabling illness increases. However, as illness strikes more frequently, the result seems to be that further migration is delayed and often the migrant settles down in some community and eventually becomes a resident. This tendency may be responsible for the high rate of illness and disease found in cities among the local homeless, many of whom may well be former interstate transients disabled for migration by chronic or recurring diseases.

Data on medical care received by transients reflect the results of the limitations imposed on the group. No class or type of transient, except special beneficiaries of the Federal health services, receives as much medical care as even the poor in resident groups. Although most students of the subject agree that care received by many residents is not adequate for the maintenance of health, transients receive even less care than do residents.

The influence of transients on community health can hardly be other than deleterious. As a result of grossly poor living conditions, a high incidence of typhoid fever and particularly of dysentery occurs among transients. Malnutrition appears to be common, diets for children being deficient to the extent that future health may be impaired. Dangers of introducing such diseases as smallpox, meningococcus meningitis, malaria, and trachoma are multiplied by an influx of transients. The discrimination noted against diseased transients in hospitals, sanatoria, and clinics undoubtedly has an economic basis. Estimates for the cost of public hospitalization now being supplied to transients in general hospitals show that an enormous load from this cause is being carried by some communities, in spite of the fact that transients generally receive considerably less medical care and hospitalization than do residents.

Specific recommendations as to the most equitable and practical solution of the medical problems involved in transiency follow: (1) Migration and transiency must be recognized as permanent characteristics of American society; (2) an organization of Federal level should be created to direct and influence migration; (3) through

the planned cooperation of the Federal and State Governments medical care should be provided for all needy persons, regardless of residence; (4) particular concentration of transients in a State should be considered a special health problem in the allotment of Federal funds for the maintenance and improvement of local public health facilities; and (5) the administration of any program of medical care for transients should be a function of the local agency responsible for the care of needy residents.

COURT DECISION ON PUBLIC HEALTH

Compensation under workmen's compensation act awarded for typhoid fever.—(New Jersey Supreme Court; *Bobertz v. Township of Hillside*, 15 A.2d 796; decided October 18, 1940.) A sewer inspector for Hillside Township, while making a routine inspection, found one of the sewers clogged and went down a manhole to effect a repair. He slipped on the step and his face and mouth were splattered with sewage. Within the incubation period he became ill with a virulent attack of typhoid fever. He sought, and the Supreme Court of New Jersey granted, compensation under the workmen's compensation act. The court said that there was no denial of the occurrence of the accident as related by the employee. It was also stated that it was too well demonstrated by the proofs to admit of doubt that sewage may contain typhoid fever germs and that human beings may be infected if germs reach the nose and mouth. No one else in the employee's family was infected with the disease, so that there was no reason to suppose that there was any home cause of infection.

DEATHS DURING WEEK ENDED NOVEMBER 30, 1940

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

| | Week ended Nov. 30, 1940 | Correspond- ing week, 1939 |
|---|-----------------------------|----------------------------------|
| Data from 88 large cities of the United States: | | |
| Total deaths..... | 8,341 | 8,536 |
| Average for 3 prior years..... | 8,716 | |
| Total deaths, first 48 weeks of year..... | 401,403 | 396,027 |
| Deaths under 1 year of age..... | 551 | 521 |
| Average for 3 prior years..... | 539 | |
| Deaths under 1 year of age, first 48 weeks of year..... | 24,143 | 23,836 |
| Data from industrial insurance companies: | | |
| Policies in force..... | 64,822,543 | 66,535,899 |
| Number of death claims..... | 13,091 | 12,371 |
| Death claims per 1,000 policies in force, annual rate..... | 10.6 | 9.7 |
| Death claims per 1,000 policies, first 48 weeks of year, annual rate..... | 9.6 | 9.9 |

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED DECEMBER 7, 1940

Summary

For the current week, 9,663 cases of influenza were reported by State health officers, as compared with 3,014 for the preceding week. This increase was accounted for in most part by the rise in California, where 6,772 cases were reported for the current week as compared with 1,490 for the preceding week. The disease is reported to be of mild form in California, with little or no increase in pneumonia deaths recorded in the cities.¹ The highest incidence is in the western and southern States, with the eastern and north central States reporting few cases.

Of the other 8 communicable diseases included in the following table, only measles, poliomyelitis and whooping cough were above the 5-year median (1935-39), and the cumulative totals for the current year to date are higher than the medians for only 2 of the 9 diseases—*influenza* and *poliomyelitis*.

Of a total of 50 cases of smallpox, 22 cases occurred in the West North Central States (18 in Minnesota), 15 in the East North Central group, and 8 cases in Oregon, while no cases were reported in the New England, Middle Atlantic, South Atlantic, or East South Central States.

Six cases of tularemia were reported in South Carolina, and of a total of 45 cases of endemic typhus fever, 14 occurred in Georgia and 12 in Texas.

For the current week the Bureau of the Census reports 8,565 deaths in 88 major cities of the United States, as compared with 8,341 for the preceding week and with a 3-year (1937-39) average of 8,654 for the corresponding week.

¹ See page 2203.

Telegraphic morbidity reports from State health officers for the week ended December 7, 1940, and comparison with corresponding week of 1939 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none were reported, cases may have occurred.

| Division and State | Diphtheria | | | Influenza | | | Measles | | | Meningitis, meningococcus | | |
|--------------------|--------------|--------------|-----------------|--------------|--------------|-----------------|--------------|--------------|-----------------|---------------------------|--------------|-----------------|
| | Week ended | | Median, 1935-39 | Week ended | | Median, 1935-39 | Week ended | | Median, 1935-39 | Week ended | | Median, 1935-39 |
| | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 | |
| NEW ENG. | | | | | | | | | | | | |
| Maine | 1 | 1 | 2 | 2 | 10 | 1 | 54 | 40 | 40 | 0 | 0 | 0 |
| New Hampshire | 0 | 0 | 0 | | | | 0 | 4 | 2 | 0 | 0 | 0 |
| Vermont | 0 | 0 | 0 | | | | 24 | 23 | 21 | 0 | 0 | 0 |
| Massachusetts | 6 | 3 | 4 | | | | 236 | 324 | 192 | 1 | 0 | 2 |
| Rhode Island | 1 | 1 | 0 | | | | 0 | 80 | 78 | 0 | 1 | 0 |
| Connecticut | 1 | 0 | 4 | 2 | 5 | 5 | 4 | 46 | 75 | 0 | 1 | 1 |
| MID. ATL. | | | | | | | | | | | | |
| New York | 15 | 12 | 35 | 3 | 12 | 13 | 733 | 509 | 496 | 0 | 2 | 5 |
| New Jersey | 10 | 15 | 15 | 6 | 9 | 12 | 231 | 16 | 16 | 0 | 1 | 1 |
| Pennsylvania | 21 | 29 | 52 | | | | 1,195 | 37 | 76 | 3 | 2 | 3 |
| E. NO. CEN. | | | | | | | | | | | | |
| Ohio | 13 | 44 | 44 | 44 | 14 | 11 | 52 | 13 | 20 | 1 | 0 | 2 |
| Indiana | 9 | 24 | 24 | 1 | 12 | 33 | 20 | 8 | 14 | 0 | 3 | 3 |
| Illinois | 21 | 46 | 41 | 10 | 8 | 22 | 653 | 24 | 28 | 1 | 2 | 2 |
| Michigan | 10 | 6 | 25 | 9 | 6 | 4 | 597 | 271 | 173 | 0 | 0 | 2 |
| Wisconsin | 0 | 1 | 3 | 69 | | 27 | 242 | 52 | 68 | 0 | 0 | 0 |
| W. NO. CEN. | | | | | | | | | | | | |
| Minnesota | 1 | 1 | 6 | 2 | 2 | 2 | 6 | 43 | 43 | 0 | 0 | 0 |
| Iowa | 2 | 11 | 8 | 3 | 15 | 3 | 46 | 16 | 6 | 2 | 0 | 0 |
| Missouri | 9 | 14 | 29 | 1 | 2 | 58 | 7 | 4 | 7 | 0 | 0 | 1 |
| North Dakota | 4 | 2 | 2 | 10 | 1 | 8 | 2 | 17 | 5 | 0 | 0 | 0 |
| South Dakota | 1 | 4 | 2 | | 1 | | 0 | 0 | 1 | 0 | 0 | 0 |
| Nebraska | 1 | 2 | 4 | | | | 3 | 1 | 2 | 0 | 0 | 1 |
| Kansas | 4 | 4 | 15 | 14 | 10 | 10 | 32 | 96 | 14 | 0 | 1 | 1 |
| SO. ATL. | | | | | | | | | | | | |
| Delaware | 0 | 0 | 1 | | | | 7 | 2 | 3 | 1 | 0 | 0 |
| Maryland | 1 | 7 | 19 | 6 | 12 | 13 | 4 | 6 | 20 | 1 | 2 | 2 |
| Dist. of Col. | 4 | 2 | 9 | | | 3 | 0 | 1 | 3 | 0 | 0 | 0 |
| Virginia | 26 | 55 | 55 | 166 | 132 | | 69 | 24 | 30 | 0 | 0 | 5 |
| West Virginia | 7 | 18 | 26 | 6 | 16 | 18 | 11 | 2 | 15 | 0 | 1 | 3 |
| North Carolina | 15 | 102 | 73 | 6 | 25 | 7 | 26 | 139 | 139 | 2 | 2 | 2 |
| South Carolina | 3 | 25 | 11 | 301 | 1,347 | 381 | 20 | 6 | 6 | 1 | 1 | 1 |
| Georgia | 21 | 36 | 27 | 133 | 214 | 57 | 27 | 8 | 0 | 0 | 0 | 0 |
| Florida | 8 | 12 | 12 | 14 | 6 | 5 | 4 | 0 | 3 | 0 | 1 | 0 |
| E. SO. CEN. | | | | | | | | | | | | |
| Kentucky | 3 | 22 | 22 | 5 | 6 | 15 | 114 | 3 | 6 | 0 | 0 | 3 |
| Tennessee | 11 | 22 | 27 | 20 | 22 | 59 | 21 | 28 | 12 | 1 | 2 | 2 |
| Alabama | 17 | 38 | 29 | 42 | 466 | 130 | 12 | 14 | 14 | 0 | 1 | 2 |
| Mississippi | 5 | 24 | 12 | | | | | | | 1 | 1 | 0 |
| W. SO. CEN. | | | | | | | | | | | | |
| Arkansas | 6 | 26 | 18 | 83 | 99 | 82 | 5 | 2 | 2 | 0 | 0 | 0 |
| Louisiana | 10 | 8 | 28 | 32 | 7 | 7 | 1 | 0 | 1 | 2 | 0 | 0 |
| Oklahoma | 21 | 17 | 24 | 288 | 113 | 69 | 2 | 4 | 4 | 0 | 1 | 1 |
| Texas | 55 | 45 | 67 | 370 | 443 | 368 | 64 | 43 | 43 | 1 | 1 | 6 |
| MOUNTAIN | | | | | | | | | | | | |
| Montana | 12 | 1 | 2 | 12 | 684 | 6 | 6 | 19 | 11 | 0 | 0 | 0 |
| Idaho | 1 | 0 | 0 | 17 | | 1 | 0 | 24 | 24 | 0 | 0 | 0 |
| Wyoming | 1 | 2 | 1 | 8 | 52 | | 1 | 6 | 1 | 0 | 0 | 0 |
| Colorado | 6 | 11 | 9 | 23 | 116 | | 28 | 17 | 9 | 0 | 0 | 0 |
| New Mexico | 1 | 5 | 5 | 6 | | | 21 | 1 | 5 | 0 | 0 | 0 |
| Arizona | 1 | 8 | 8 | 471 | 86 | 86 | 29 | 3 | 2 | 0 | 0 | 1 |
| Utah | 0 | 2 | 1 | 243 | 296 | 4 | 8 | 52 | 23 | 0 | 0 | 0 |
| Nevada | 0 | | | | | | 0 | | | 0 | | |
| PACIFIC | | | | | | | | | | | | |
| Washington | 1 | 0 | 3 | 95 | | | 31 | 378 | 128 | 0 | 1 | 1 |
| Oregon | 1 | 1 | 1 | 368 | 57 | 23 | 15 | 34 | 14 | 2 | 2 | 1 |
| California | 26 | 31 | 31 | 6,772 | 19 | 37 | 84 | 134 | 134 | 2 | 0 | 1 |
| Total | 393 | 740 | 896 | 9,663 | 4,325 | 1,963 | 4,747 | 2,574 | 2,574 | 22 | 30 | 73 |
| 49 weeks | 14,739 | 22,471 | 26,741 | 191,873 | 169,793 | 151,539 | 257,640 | 366,393 | 366,393 | 1,515 | 1,851 | 5,146 |

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended December 7, 1940, and comparison with corresponding week of 1939 and 5-year median—Continued

| Division and State | Poliomyelitis | | | Scarlet fever | | | Smallpox | | | Typhoid and paratyphoid fever | | |
|-----------------------------------|---------------|--------------|-----------------|---------------|--------------|-----------------|--------------|--------------|-----------------|-------------------------------|--------------|-----------------|
| | Week ended | | Median, 1935-39 | Week ended | | Median, 1935-39 | Week ended | | Median, 1935-39 | Week ended | | Median, 1935-39 |
| | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 | |
| NEW ENG. | | | | | | | | | | | | |
| Maine..... | 0 | 1 | 0 | 19 | 8 | 11 | 0 | 0 | 0 | 4 | 0 | 2 |
| New Hampshire..... | 0 | 0 | 0 | 3 | 1 | 6 | 0 | 0 | 0 | 0 | 2 | 0 |
| Vermont..... | 0 | 0 | 0 | 2 | 6 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts..... | 0 | 2 | 0 | 140 | 84 | 129 | 0 | 0 | 0 | 1 | 2 | 1 |
| Rhode Island ¹ | 0 | 0 | 0 | 7 | 11 | 20 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut..... | 0 | 1 | 0 | 33 | 43 | 44 | 0 | 0 | 0 | 1 | 2 | 1 |
| MID. ATL. | | | | | | | | | | | | |
| New York..... | 2 | 6 | 3 | 268 | 302 | 400 | 0 | 0 | 0 | 14 | 6 | 7 |
| New Jersey..... | 2 | 2 | 1 | 136 | 222 | 103 | 0 | 0 | 0 | 1 | 7 | 3 |
| Pennsylvania..... | 1 | 3 | 3 | 234 | 312 | 421 | 0 | 0 | 0 | 3 | 7 | 7 |
| E. NO. CEN. | | | | | | | | | | | | |
| Ohio..... | 7 | 1 | 2 | 212 | 397 | 379 | 0 | 1 | 1 | 6 | 9 | 4 |
| Indiana..... | 5 | 1 | 0 | 114 | 138 | 181 | 1 | 3 | 3 | 4 | 1 | 2 |
| Illinois..... | 5 | 1 | 1 | 294 | 316 | 343 | 7 | 5 | 5 | 8 | 9 | 9 |
| Michigan ¹ | 2 | 3 | 1 | 154 | 285 | 406 | 5 | 1 | 1 | 1 | 1 | 1 |
| Wisconsin..... | 17 | 3 | 1 | 146 | 101 | 197 | 2 | 6 | 6 | 2 | 0 | 1 |
| W. NO. CEN. | | | | | | | | | | | | |
| Minnesota..... | 2 | 3 | 0 | 67 | 118 | 140 | 18 | 32 | 16 | 0 | 1 | 0 |
| Iowa..... | 4 | 9 | 1 | 102 | 62 | 92 | 3 | 10 | 10 | 1 | 0 | 0 |
| Missouri..... | 3 | 0 | 1 | 54 | 88 | 132 | 0 | 5 | 5 | 2 | 2 | 5 |
| North Dakota..... | 2 | 0 | 0 | 3 | 26 | 26 | 1 | 0 | 1 | 0 | 0 | 0 |
| South Dakota..... | 3 | 0 | 0 | 16 | 18 | 33 | 0 | 2 | 11 | 0 | 0 | 0 |
| Nebraska..... | 2 | 0 | 0 | 33 | 20 | 27 | 0 | 0 | 0 | 0 | 0 | 1 |
| Kansas..... | 1 | 2 | 0 | 82 | 128 | 153 | 0 | 0 | 5 | 3 | 3 | 2 |
| SO. ATL. | | | | | | | | | | | | |
| Delaware..... | 0 | 1 | 0 | 12 | 22 | 12 | 0 | 0 | 0 | 0 | 1 | 1 |
| Maryland ¹ | 0 | 2 | 0 | 39 | 50 | 68 | 0 | 0 | 0 | 1 | 6 | 5 |
| Dist. of Col..... | 0 | 0 | 0 | 15 | 2 | 12 | 0 | 0 | 0 | 0 | 1 | 2 |
| Virginia..... | 5 | 1 | 1 | 52 | 69 | 55 | 0 | 0 | 0 | 5 | 2 | 4 |
| West Virginia ¹ | 5 | 0 | 0 | 43 | 91 | 91 | 0 | 0 | 0 | 0 | 11 | 5 |
| North Carolina ² | 1 | 0 | 1 | 105 | 113 | 87 | 0 | 1 | 0 | 2 | 5 | 4 |
| South Carolina ² | 0 | 4 | 1 | 20 | 25 | 8 | 0 | 0 | 0 | 3 | 4 | 2 |
| Georgia ² | 1 | 1 | 1 | 27 | 38 | 26 | 0 | 0 | 1 | 8 | 4 | 4 |
| Florida..... | 2 | 0 | 0 | 5 | 9 | 9 | 0 | 1 | 0 | 5 | 1 | 2 |
| E. SO. CEN. | | | | | | | | | | | | |
| Kentucky..... | 3 | 10 | 1 | 96 | 68 | 68 | 0 | 0 | 0 | 4 | 3 | 3 |
| Tennessee..... | 0 | 0 | 2 | 51 | 75 | 45 | 0 | 0 | 0 | 7 | 7 | 7 |
| Alabama ² | 1 | 0 | 0 | 35 | 50 | 30 | 0 | 0 | 0 | 5 | 0 | 2 |
| Mississippi ¹ | 1 | 2 | 1 | 22 | 18 | 18 | 0 | 0 | 0 | 1 | 3 | 3 |
| W. SO. CEN. | | | | | | | | | | | | |
| Arkansas..... | 0 | 2 | 1 | 13 | 16 | 16 | 1 | 2 | 2 | 2 | 3 | 3 |
| Louisiana ² | 1 | 1 | 1 | 7 | 18 | 18 | 0 | 1 | 0 | 14 | 5 | 7 |
| Oklahoma..... | 1 | 1 | 1 | 20 | 18 | 23 | 0 | 6 | 3 | 1 | 7 | 7 |
| Texas ² | 2 | 4 | 4 | 37 | 56 | 100 | 0 | 6 | 2 | 10 | 11 | 24 |
| MOUNTAIN | | | | | | | | | | | | |
| Montana..... | 0 | 0 | 0 | 16 | 42 | 37 | 3 | 1 | 25 | 1 | 0 | 0 |
| Idaho..... | 0 | 1 | 0 | 12 | 10 | 33 | 0 | 0 | 1 | 0 | 1 | 2 |
| Wyoming..... | 0 | 0 | 0 | 7 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 |
| Colorado..... | 1 | 3 | 0 | 33 | 45 | 45 | 0 | 29 | 23 | 0 | 0 | 0 |
| New Mexico..... | 0 | 0 | 1 | 17 | 20 | 20 | 0 | 0 | 0 | 3 | 5 | 7 |
| Arizona..... | 0 | 0 | 0 | 4 | 8 | 8 | 0 | 0 | 0 | 0 | 3 | 0 |
| Utah ¹ | 1 | 5 | 0 | 13 | 18 | 28 | 0 | 1 | 0 | 0 | 3 | 0 |
| Nevada..... | 0 | | | | | | 0 | | | 1 | | |
| PACIFIC | | | | | | | | | | | | |
| Washington..... | 3 | 0 | 1 | 35 | 29 | 67 | 0 | 0 | 3 | 1 | 5 | 2 |
| Oregon..... | 0 | 1 | 0 | 20 | 31 | 51 | 8 | 2 | 5 | 0 | 2 | 2 |
| California..... | 5 | 21 | 6 | 99 | 191 | 220 | 1 | 4 | 4 | 2 | 6 | 7 |
| Total..... | 91 | 98 | 68 | 2,974 | 3,834 | 4,468 | 50 | 119 | 199 | 127 | 151 | 151 |
| 49 weeks..... | 9,600 | 7,126 | 7,126 | 146,519 | 151,214 | 209,505 | 2,292 | 9,280 | 9,280 | 9,286 | 12,416 | 14,135 |

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended December 7, 1940, and comparison with corresponding week of 1939 and 5-year median—
Continued

| Division and State | Whooping cough | | Division and State | Whooping cough | |
|-----------------------------------|-----------------|-----------------|-----------------------------------|-----------------|-----------------|
| | Week ended— | | | Week ended— | |
| | Dec. 7, 1940 | Dec. 9, 1939 | | Dec. 7, 1940 | Dec. 9, 1939 |
| NEW ENG. | | | SO. ATL.—continued | | |
| Maine..... | 66 | 53 | South Carolina ¹ | 23 | 12 |
| New Hampshire..... | 2 | 7 | Georgia ² | 26 | 20 |
| Vermont..... | 7 | 57 | Florida..... | 9 | 2 |
| Massachusetts..... | 272 | 136 | E. SO. CEN. | | |
| Rhode Island ¹ | 7 | 16 | Kentucky..... | 67 | 45 |
| Connecticut..... | 61 | 98 | Tennessee..... | 15 | 44 |
| MID. ATL. | | | Alabama ³ | 26 | 13 |
| New York..... | 473 | 494 | Mississippi ^{1, 2} | ----- | ----- |
| New Jersey..... | 171 | 140 | W. SO. CEN. | | |
| Pennsylvania..... | 678 | 303 | Arkansas..... | 14 | 5 |
| E. NO. CEN. | | | Louisiana ³ | 9 | 29 |
| Ohio..... | 305 | 132 | Oklahoma..... | 17 | 1 |
| Indiana..... | 13 | 63 | Texas ³ | 119 | 58 |
| Illinois..... | 140 | 112 | MOUNTAIN | | |
| Michigan ¹ | 342 | 131 | Montana..... | 2 | 6 |
| Wisconsin..... | 161 | 110 | Idaho..... | 8 | 0 |
| W. NO. CEN. | | | Wyoming..... | 4 | 12 |
| Minnesota..... | 111 | 52 | Colorado..... | 40 | 10 |
| Iowa..... | 27 | 55 | New Mexico..... | 16 | 36 |
| Missouri..... | 51 | 14 | Arizona..... | 19 | 2 |
| North Dakota..... | 17 | 13 | Utah..... | 24 | 95 |
| South Dakota..... | 3 | 1 | Nevada..... | 4 | ----- |
| Nebraska..... | 7 | 12 | PACIFIC | | |
| Kansas..... | 121 | 27 | Washington..... | 62 | 17 |
| SO. ATL. | | | Oregon..... | 8 | 35 |
| Delaware..... | 30 | 16 | California..... | 316 | 148 |
| Maryland ¹ | 81 | 55 | Total..... | | |
| Dist. of Col..... | 14 | 10 | 4,339 | | 2,839 |
| Virginia..... | 75 | 39 | 49 weeks..... | | |
| West Virginia ¹ | 33 | 14 | 159,619 | | 165,667 |
| North Carolina ² | 243 | 89 | | | |

¹ Period ended earlier than Saturday.

² New York City only.

³ Typhus fever, week ended Dec. 7, 1940, 45 cases, as follows: North Carolina, 3; South Carolina, 2; Georgia, 14; Alabama, 6; Mississippi, 2; Louisiana, 6; Texas, 12.

VENEREAL DISEASES

New Cases Reported for September 1940¹

Reports from States

| | Syphilis | | | | | | | | Gonorrhea | | Other venereal diseases | | | |
|-----------------------------|-----------------------|---------------------------|----------------------------|----------------------|----------------------------|------------|----------------------------|---------------------------|----------------------------|--------|----------------------------|--------|----------------------------|--|
| | Early | | | Late | | Congenital | | All syphilis ² | | Number | Rate per 10,000 population | Number | Rate per 10,000 population | |
| | Primary and secondary | Early-latent ³ | Rate per 10,000 population | Includes late-latent | Rate per 10,000 population | Number | Rate per 10,000 population | Number | Rate per 10,000 population | | | | | |
| Alabama | 281 | 265 | 1.93 | 281 | 0.99 | 57 | 0.20 | 1,426 | 5.04 | 419 | 1.48 | 13 | 0.05 | |
| Alaska | 8 | | 1.11 | 17 | 2.36 | 1 | .14 | 26 | 3.61 | 44 | 6.11 | | | |
| Arizona | 28 | 11 | .78 | 41 | .82 | | .16 | 161 | 3.23 | 127 | 2.55 | 9 | .18 | |
| Arkansas | 197 | 231 | 2.20 | 603 | 3.10 | 23 | .12 | 1,211 | 6.22 | 153 | 2.79 | 9 | .05 | |
| California | 221 | 369 | .86 | 979 | 1.42 | 73 | .11 | 1,730 | 2.52 | 1,948 | 2.83 | 31 | .05 | |
| Colorado | 62 | | .55 | 131 | 1.17 | 16 | .14 | 209 | 1.87 | 108 | .97 | | | |
| Connecticut | 13 | 8 | .12 | 118 | .69 | 17 | .10 | 174 | 1.02 | 133 | .78 | 1 | .01 | |
| Delaware | 7 | 13 | .75 | 23 | .86 | 2 | .08 | 155 | 5.82 | 44 | 1.65 | | | |
| District of Columbia | | | | | | | | 386 | 5.82 | 262 | 3.95 | 3 | .05 | |
| Florida | 181 | 231 | 2.18 | 563 | 2.98 | 36 | .19 | 1,634 | 7.23 | 124 | .66 | 10 | .05 | |
| Georgia | | 1,122 | 3.60 | 561 | 1.80 | | | 1,683 | 5.39 | 84 | .27 | 6 | .02 | |
| Hawaii | 9 | 1 | .24 | 16 | .38 | 7 | .17 | 51 | 1.20 | 47 | 1.11 | | | |
| Idaho | 17 | | .32 | 11 | .21 | 1 | .02 | 29 | .55 | 18 | .34 | | | |
| Illinois | 147 | 309 | .58 | 1,105 | 1.40 | 62 | .08 | 1,623 | 2.06 | 1,656 | 2.10 | 39 | .05 | |
| Indiana | 83 | 42 | .37 | 237 | .69 | 29 | .08 | 571 | 1.67 | 212 | .62 | | | |
| Iowa | 37 | 53 | .35 | 107 | .42 | 6 | .02 | 209 | .82 | 173 | .68 | | | |
| Kansas | 45 | 22 | .37 | 57 | .32 | 11 | .06 | 194 | 1.08 | 169 | .94 | 2 | .01 | |
| Kentucky | 62 | 31 | .33 | 191 | .67 | 12 | .04 | 462 | 1.63 | 298 | 1.05 | 3 | .01 | |
| Louisiana | 310 | 2 | 1.32 | 10 | .04 | 3 | .01 | 734 | 3.11 | 145 | .61 | 14 | .06 | |
| Maine | 16 | | .19 | 20 | .24 | 3 | .04 | 42 | .50 | 17 | .20 | | | |
| Maryland | 89 | 25 | .63 | 151 | .83 | 21 | .12 | 709 | 3.91 | 369 | 2.04 | 16 | .09 | |
| Massachusetts | 59 | | .14 | 310 | .72 | 34 | .08 | 403 | .93 | 391 | .91 | | | |
| Michigan | 112 | 122 | .45 | 411 | .78 | 32 | .06 | 802 | 1.53 | 803 | 1.53 | 21 | .04 | |
| Minnesota | 14 | 19 | .12 | 161 | .58 | 9 | .03 | 203 | .73 | 187 | .67 | | | |
| Mississippi | 198 | 557 | 3.46 | 747 | 3.42 | 113 | .52 | 4,026 | 18.45 | 2,402 | 11.01 | 1 | .004 | |
| Missouri | 139 | 266 | 1.07 | 225 | .60 | 21 | .06 | 674 | 1.79 | 305 | .81 | 8 | .02 | |
| Montana | 10 | | .18 | 16 | .29 | 1 | .02 | 36 | .65 | 34 | .61 | | | |
| Nebraska | 35 | 5 | .30 | 39 | .30 | 3 | .02 | 82 | .62 | 103 | .78 | | | |
| Nevada | 1 | 11 | 1.09 | 7 | .64 | 11 | 1.00 | 30 | 2.73 | 13 | 1.18 | | | |
| New Hampshire | 1 | 2 | .06 | 12 | .24 | 2 | .04 | 20 | .41 | 10 | .20 | | | |
| New Jersey | 105 | 162 | .64 | 497 | 1.20 | 49 | .12 | 823 | 1.98 | 337 | .81 | 51 | .12 | |
| New Mexico | 14 | 9 | .44 | 51 | .96 | 1 | .02 | 78 | 1.48 | 36 | .68 | 1 | .02 | |
| New York | 249 | 389 | .48 | 2,280 | 1.70 | 137 | .10 | 3,294 | 2.46 | 1,803 | 1.35 | 77 | .06 | |
| North Carolina | 181 | 631 | 2.28 | 425 | 1.19 | 86 | .24 | 1,323 | 3.71 | 519 | 1.46 | 34 | .10 | |
| North Dakota | 6 | 8 | .22 | 8 | .13 | | | 26 | .41 | 43 | .67 | | | |
| Ohio | 229 | 257 | .71 | 793 | 1.15 | 62 | .09 | 1,341 | 1.95 | 160 | .23 | 4 | .01 | |
| Oklahoma | 117 | 180 | 1.27 | 152 | .65 | 21 | .09 | 702 | 3.01 | 403 | 1.73 | | | |
| Oregon | 35 | 22 | .62 | 49 | .45 | 4 | .04 | 112 | 1.03 | 111 | 1.02 | | | |
| Pennsylvania | 194 | 364 | .56 | 502 | .51 | 63 | .06 | 1,123 | 1.14 | | | | | |
| Rhode Island | 9 | 10 | .27 | 44 | .62 | 5 | .07 | 71 | 1.00 | 37 | .52 | | | |
| South Carolina | 431 | 311 | 4.42 | 434 | 2.28 | 25 | .13 | 1,339 | 7.03 | 59 | .31 | 1 | .01 | |
| South Dakota | 31 | 14 | .70 | 13 | .20 | 4 | .06 | 62 | .97 | 32 | .50 | | | |
| Tennessee | 257 | 502 | 2.60 | 717 | 2.46 | 45 | .15 | 1,523 | 5.23 | 402 | 1.38 | 17 | .06 | |
| Texas | 368 | 596 | 1.50 | 926 | 1.44 | 98 | .15 | 2,185 | 3.40 | 885 | 1.38 | 45 | .07 | |
| Utah | 12 | 7 | .35 | 50 | .91 | 11 | .20 | 81 | 1.48 | 53 | .97 | 1 | .02 | |
| Vermont | 4 | 10 | .39 | 4 | .11 | 2 | .06 | 20 | .56 | 21 | .58 | | | |
| Virginia | 444 | 421 | 3.25 | 710 | 2.66 | 51 | .19 | 1,724 | 6.47 | 280 | 1.05 | | | |
| Washington | 34 | 40 | .43 | 158 | .92 | 7 | .04 | 264 | 1.53 | 479 | 2.78 | 4 | .02 | |
| West Virginia | 91 | 69 | .84 | 90 | .47 | 22 | .12 | 526 | 2.77 | 224 | 1.18 | | | |
| Wisconsin | 20 | 2 | .07 | 101 | .32 | 4 | .01 | 127 | .41 | 114 | .36 | | | |
| Wyoming | 7 | 6 | .53 | 18 | .73 | 1 | .04 | 36 | 1.46 | 30 | 1.22 | 1 | .04 | |
| Puerto Rico ⁴ | | | | | | | | | | | | | | |
| Virgin Islands ⁴ | | | | | | | | | | | | | | |
| Total | 5,320 | 7,727 | .99 | 15,172 | 1.16 | 1,312 | .10 | 36,205 | 2.76 | 16,826 | 1.28 | 422 | .03 | |

See footnotes at end of table.

Reports from cities of 200,000 population or over

| | Syphilis | | | | | | | | Gonorrhea | | Other venereal diseases | | |
|---------------------------|-----------------------|--------------------------|----------------------------|--------------------|----------------------------|------------|----------------------------|---------------------------|----------------------------|--------|----------------------------|--------|----------------------------|
| | Early | | | Late | | Congenital | | All syphilis ¹ | | Number | Rate per 10,000 population | Number | Rate per 10,000 population |
| | Primary and secondary | Early-late: ² | Rate per 10,000 population | Includes late-late | Rate per 10,000 population | Number | Rate per 10,000 population | Number | Rate per 10,000 population | | | | |
| Akron | 11 | 6 | 0.70 | 29 | 1.19 | 3 | 0.12 | 49 | 2.02 | 6 | 0.25 | | |
| Atlanta | | 301 | 9.95 | 76 | 2.61 | | | 377 | 12.46 | 44 | 1.45 | | |
| Baltimore | 77 | 8 | 1.00 | 111 | 1.30 | 5 | .06 | 446 | 5.22 | 257 | 3.01 | 15 | 0.18 |
| Birmingham | 77 | 11 | 3.33 | 25 | .95 | 4 | .15 | 357 | 13.51 | 60 | 2.27 | | |
| Boston ⁴ | | | | | | | | | | | | | |
| Buffalo | 20 | | .35 | 109 | 1.90 | 4 | .07 | 133 | 2.31 | 86 | 1.50 | | |
| Chicago | 91 | 157 | .73 | 760 | 2.25 | 28 | .08 | 936 | 2.77 | 1,107 | 3.27 | 37 | .11 |
| Cincinnati ⁴ | | | | | | | | | | | | | |
| Cleveland | 25 | 52 | .88 | 170 | 1.94 | 17 | .19 | 264 | 3.01 | 156 | 1.78 | 1 | .01 |
| Columbus | 14 | 21 | 1.15 | 62 | 2.03 | 5 | .16 | 102 | 3.34 | 26 | .85 | | |
| Dallas | 48 | 44 | 3.14 | 100 | 3.41 | 4 | .14 | 196 | 6.68 | 152 | 5.18 | 24 | .82 |
| Dayton | 13 | 8 | .99 | 46 | 2.18 | 4 | .19 | 71 | 3.36 | 32 | 1.51 | 1 | .05 |
| Denver | 29 | 13 | 1.32 | 72 | 2.26 | 8 | .25 | 124 | 3.89 | 74 | 2.32 | | |
| Detroit | 41 | 60 | .62 | 272 | 1.68 | 9 | .06 | 382 | 2.36 | 352 | 2.21 | 16 | .10 |
| Houston ⁴ | | | | | | | | | | | | | |
| Indianapolis | 13 | 2 | .39 | 17 | .44 | 4 | .10 | 117 | 3.03 | 57 | 1.48 | | |
| Jersey City | 8 | 6 | .47 | 20 | .66 | | | 36 | 1.20 | 11 | .37 | | |
| Kansas City ⁴ | | | | | | | | | | | | | |
| Los Angeles | | 183 | 1.22 | 359 | 2.40 | 19 | .13 | 561 | 3.75 | 494 | 3.30 | 6 | .04 |
| Louisville | 7 | 3 | .31 | 70 | 2.20 | 4 | .13 | 134 | 4.20 | 68 | 2.13 | | |
| Memphis ⁴ | | | | | | | | | | | | | |
| Milwaukee | 5 | 11 | .27 | 44 | .75 | 1 | .02 | 61 | 1.03 | 28 | .47 | 28 | .47 |
| Minneapolis | 1 | 3 | .08 | 24 | .49 | | | 28 | .57 | 51 | 1.04 | | |
| Newark | 6 | 22 | .65 | 136 | 3.18 | 23 | .54 | 187 | 4.37 | 61 | 1.42 | | |
| New Orleans ⁴ | | | | | | | | | | | | | |
| New York | 249 | 305 | .75 | 1,391 | 1.88 | 83 | .11 | 2,255 | 3.06 | 1,325 | 1.80 | 85 | .12 |
| Oakland | 21 | 16 | 1.21 | 90 | 2.95 | 6 | .20 | 133 | 4.36 | 137 | 4.49 | 3 | .10 |
| Omaha | 25 | 4 | 1.30 | 11 | .49 | 1 | .04 | 41 | 1.84 | 25 | 1.12 | | |
| Philadelphia ⁴ | | | | | | | | | | | | | |
| Pittsburgh ⁴ | | | | | | | | | | | | | |
| Portland | 6 | 11 | .65 | 23 | .75 | 2 | .07 | 42 | 1.37 | 61 | 1.98 | | |
| Providence | 6 | 2 | .32 | 26 | 1.03 | 1 | .04 | 35 | 1.38 | 20 | .79 | | |
| Rochester | | | | 24 | .74 | | | 24 | .74 | 32 | .99 | | |
| St. Louis | 34 | 181 | 2.64 | 317 | 3.90 | 16 | .20 | 550 | 6.76 | 246 | 3.02 | 7 | .09 |
| St. Paul | 3 | 4 | .24 | 17 | .59 | 3 | .10 | 27 | .94 | 27 | .94 | | |
| San Antonio | 12 | 32 | 1.74 | 99 | 3.91 | 21 | .83 | 173 | 6.83 | 61 | 2.41 | 1 | .04 |
| San Francisco | 33 | 35 | 1.08 | 107 | 1.70 | 8 | .13 | 183 | 2.91 | 247 | 3.92 | 11 | .17 |
| Seattle | 18 | 11 | .79 | 73 | 1.99 | 1 | .03 | 117 | 3.19 | 190 | 5.18 | 5 | .14 |
| Syracuse | | | | 60 | 2.92 | 6 | .29 | 66 | 3.21 | 8 | .39 | | |
| Toledo | 6 | 4 | .36 | 34 | 1.21 | 3 | .12 | 47 | 1.67 | 47 | 1.67 | | |
| Washington | | | | | | | | 386 | 5.82 | 262 | 3.95 | 3 | .05 |
| Total | 899 | 1,516 | .97 | 4,774 | 1.92 | 293 | .11 | 8,640 | 3.38 | 5,815 | 2.28 | 243 | .12 |

¹ Figures preliminary and subject to correction; rates based on 1940 census populations.

² Includes "not stated" diagnosis.

³ Duration of infection under 4 years.

⁴ No report for current month.

WEEKLY REPORTS FROM CITIES

City reports for week ended November 23, 1940

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

| State and city | Diphtheria cases | Influenza | | Measles cases | Pneumonia deaths | Scarlet fever cases | Small-pox cases | Tuberculosis deaths | Typhoid fever cases | Whooping cough cases | Deaths, all causes |
|----------------------------|------------------|-----------|--------|---------------|------------------|---------------------|-----------------|---------------------|---------------------|----------------------|--------------------|
| | | Cases | Deaths | | | | | | | | |
| Data for 90 cities: | | | | | | | | | | | |
| 5-year average | 197 | 127 | 39 | 660 | 521 | 1,031 | 8 | 326 | 32 | 1,040 | ----- |
| Current week | 64 | 86 | 24 | 1,409 | 341 | 660 | 2 | 284 | 33 | 1,314 | ----- |
| Maine: | | | | | | | | | | | |
| Portland | 0 | ----- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 14 |
| New Hampshire: | | | | | | | | | | | |
| Concord | 0 | ----- | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 11 |
| Manchester | 0 | ----- | 0 | 0 | 2 | 4 | 0 | 1 | 0 | 0 | 20 |
| Nashua | 0 | ----- | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 |
| Vermont: | | | | | | | | | | | |
| Barré | 0 | ----- | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| Burlington | 0 | ----- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Rutland | 0 | ----- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| Massachusetts: | | | | | | | | | | | |
| Boston | 0 | ----- | 1 | 47 | 17 | 26 | 0 | 3 | 3 | 107 | 213 |
| Fall River | 1 | ----- | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 26 |
| Springfield | 0 | ----- | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 38 |
| Worcester | 0 | ----- | 0 | 101 | 3 | 6 | 0 | 1 | 0 | 0 | 41 |
| Rhode Island: | | | | | | | | | | | |
| Pawtucket | 1 | ----- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| Providence | 1 | ----- | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 53 |
| Connecticut: | | | | | | | | | | | |
| Bridgewater | 0 | ----- | 1 | 0 | 2 | 3 | 0 | 2 | 2 | 1 | 32 |
| Hartford | 0 | ----- | 0 | 1 | 2 | 5 | 0 | 2 | 0 | 5 | 44 |
| New Haven | 0 | ----- | 0 | 0 | 4 | 5 | 0 | 0 | 0 | 31 | 44 |
| New York: | | | | | | | | | | | |
| Buffalo | 0 | ----- | 1 | 10 | 3 | 11 | 0 | 2 | 0 | 14 | 130 |
| New York | 14 | ----- | 1 | 304 | 50 | 50 | 0 | 66 | 5 | 127 | 1,372 |
| Rochester | 0 | ----- | 0 | 2 | 3 | 0 | 0 | 1 | 0 | 24 | 57 |
| Syracuse | 0 | ----- | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 8 | 31 |
| New Jersey: | | | | | | | | | | | |
| Camden | 0 | ----- | 0 | 46 | 0 | 4 | 0 | 2 | 0 | 8 | 34 |
| Newark | 0 | ----- | 2 | 16 | 3 | 19 | 0 | 5 | 0 | 19 | 82 |
| Trenton | 0 | ----- | 1 | 0 | 3 | 0 | 0 | 5 | 0 | 0 | 30 |
| Pennsylvania: | | | | | | | | | | | |
| Philadelphia | 3 | ----- | 1 | 244 | 14 | 53 | 0 | 20 | 2 | 116 | 413 |
| Pittsburgh | 0 | ----- | 2 | 1 | 3 | 10 | 11 | 7 | 2 | 32 | 178 |
| Reading | 0 | ----- | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 34 | 16 |
| Scranton | 0 | ----- | ----- | 0 | ----- | 1 | 0 | ----- | 0 | 0 | ----- |
| Ohio: | | | | | | | | | | | |
| Cincinnati | 0 | ----- | 1 | 0 | 5 | 20 | 0 | 4 | 0 | 3 | 125 |
| Cleveland | 0 | ----- | 14 | 1 | 5 | 12 | 20 | 4 | 0 | 71 | 211 |
| Columbus | 0 | ----- | 1 | 0 | 1 | 8 | 0 | 1 | 0 | 21 | 65 |
| Toledo | 0 | ----- | 0 | 1 | 3 | 13 | 0 | 2 | 0 | 8 | 54 |
| Indiana: | | | | | | | | | | | |
| Anderson | 0 | ----- | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| Fort Wayne | 0 | ----- | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 25 |
| Indianapolis | 1 | ----- | 1 | 0 | 8 | 15 | 0 | 3 | 0 | 13 | 108 |
| Muncie | 0 | ----- | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 11 |
| South Bend | 0 | ----- | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 15 |
| Terre Haute | 0 | ----- | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| Illinois: | | | | | | | | | | | |
| Alton | 0 | ----- | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 11 |
| Chicago | 12 | ----- | 3 | 3 | 259 | 34 | 132 | 0 | 25 | 0 | 92 |
| Elgin | 0 | ----- | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 14 |
| Moline | 0 | ----- | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 8 |
| Springfield | 0 | ----- | 0 | 0 | 1 | 7 | 1 | 0 | 0 | 1 | 22 |
| Michigan: | | | | | | | | | | | |
| Detroit | 5 | ----- | 1 | 196 | 17 | 61 | 0 | 17 | 0 | 107 | 253 |
| Flint | 0 | ----- | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 4 | 26 |
| Grand Rapids | 0 | ----- | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 24 | 29 |
| Wisconsin: | | | | | | | | | | | |
| Kenosha | 0 | ----- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Madison | 0 | ----- | 0 | 5 | 0 | 2 | 0 | 0 | 0 | 4 | 21 |
| Milwaukee | 1 | ----- | 0 | 15 | 2 | 22 | 0 | 1 | 0 | 17 | 85 |
| Racine | 0 | ----- | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 2 | 13 |
| Superior | 0 | ----- | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 3 | 5 |
| Minnesota: | | | | | | | | | | | |
| Duluth | 0 | ----- | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 12 | 32 |
| Minneapolis | 0 | ----- | 0 | 1 | 4 | 21 | 0 | 0 | 0 | 26 | 92 |
| St. Paul | 0 | ----- | 0 | 1 | 7 | 8 | 0 | 1 | 0 | 18 | 67 |

City reports for week ended November 23, 1940—Continued

| State and city | Diph- theria cases | Influenza | | Meas- les cases | Pneu- monia deaths | Scar- let fever cases | Small- pox cases | Tuber- culosis deaths | Ty- phoid fever cases | Whoop- ing cough cases | Deaths, all causes |
|------------------------|--------------------------|-----------|--------|-----------------------|--------------------------|--------------------------------|------------------------|-----------------------------|--------------------------------|---------------------------------|--------------------------|
| | | Cases | Deaths | | | | | | | | |
| Iowa: | | | | | | | | | | | |
| Cedar Rapids | 0 | | | 1 | | 5 | 0 | | 0 | 0 | |
| Davenport | 0 | | | 0 | | 2 | 0 | | 0 | 0 | |
| Des Moines | 2 | | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 1 | 35 |
| Sioux City | 0 | | | 1 | | 2 | 0 | | 0 | 1 | |
| Waterloo | 2 | | | 0 | | 2 | 0 | | 0 | 0 | |
| Missouri: | | | | | | | | | | | |
| Kansas City | 0 | | 0 | 0 | 4 | 4 | 0 | 3 | 0 | 48 | 97 |
| St. Joseph | 1 | | 1 | 0 | 5 | 0 | 0 | 1 | 0 | 2 | 25 |
| St. Louis | 2 | | 0 | 2 | 8 | 12 | 0 | 12 | 2 | 16 | 202 |
| North Dakota: | | | | | | | | | | | |
| Fargo | 0 | | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 10 |
| Grand Forks | 0 | | | 0 | | 1 | 0 | | 0 | 0 | |
| Minot | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| South Dakota: | | | | | | | | | | | |
| Aberdeen | 0 | | | 0 | | 2 | 0 | | 0 | 0 | |
| Sioux Falls | 0 | | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 9 |
| Nebraska: | | | | | | | | | | | |
| Lincoln | 0 | | | 0 | | 1 | 0 | | 0 | 1 | |
| Omaha | 0 | | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 53 |
| Kansas: | | | | | | | | | | | |
| Lawrence | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Topeka | 0 | | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 3 | 17 |
| Wichita | 0 | | 0 | 1 | 2 | 2 | 0 | 2 | 1 | 25 | 23 |
| Delaware: | | | | | | | | | | | |
| Wilmington | 0 | | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 9 | 13 |
| Maryland: | | | | | | | | | | | |
| Baltimore | 0 | 1 | | 3 | 11 | 17 | 0 | 1 | 0 | 15 | 198 |
| Cumberland | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| Frederick | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Dist. of Col.: | | | | | | | | | | | |
| Washington | 1 | 1 | 0 | 3 | 12 | 8 | 0 | 9 | 0 | 9 | 164 |
| Virginia: | | | | | | | | | | | |
| Lynchburg | 0 | | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 13 |
| Norfolk | 0 | | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 7 | 19 |
| Richmond | 0 | | 0 | 0 | 3 | 9 | 0 | 1 | 2 | 0 | 43 |
| Roanoke | 1 | | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 5 | 16 |
| West Virginia: | | | | | | | | | | | |
| Charleston | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Huntington | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Wheeling | 0 | | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 32 |
| North Carolina: | | | | | | | | | | | |
| Gastonia | 0 | | | 0 | | 1 | 0 | | 0 | 4 | |
| Raleigh | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 20 |
| Wilmington | 2 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| Winston-Salem | 1 | | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 38 | 16 |
| South Carolina: | | | | | | | | | | | |
| Charleston | 0 | 14 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 15 |
| Florence | 1 | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 7 |
| Greenville | 0 | | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 22 |
| Georgia: | | | | | | | | | | | |
| Atlanta | 3 | | 0 | 1 | 1 | 7 | 0 | 2 | 0 | 2 | 62 |
| Brunswick | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 |
| Savannah | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 31 |
| Florida: | | | | | | | | | | | |
| Miami | 0 | | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 36 |
| Tampa | 1 | | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 19 |
| Kentucky: | | | | | | | | | | | |
| Ashland | 9 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| Covington | 1 | | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 10 |
| Lexington | 0 | | 0 | 48 | 0 | 0 | 0 | 1 | 0 | 6 | 14 |
| Louisville | 0 | 1 | 0 | | 3 | 11 | 0 | 3 | 0 | 8 | 66 |
| Tennessee: | | | | | | | | | | | |
| Knoxville | 2 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 27 |
| Memphis | 0 | | 0 | 8 | 3 | 6 | 0 | 8 | 0 | 7 | 99 |
| Nashville | 0 | | 1 | 0 | 4 | 4 | 0 | 2 | 0 | 8 | 56 |
| Alabama: | | | | | | | | | | | |
| Birmingham | 1 | 1 | 0 | 6 | 7 | 1 | 0 | 3 | 1 | 1 | 65 |
| Mobile | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 2 | 0 | 0 | 23 |
| Montgomery | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Arkansas: | | | | | | | | | | | |
| Fort Smith | 0 | | | 1 | | 0 | 0 | | 0 | 0 | |
| Little Rock | 0 | 1 | 1 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 33 |
| Louisiana: | | | | | | | | | | | |
| Lake Charles | 0 | | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 6 |
| New Orleans | 0 | 4 | 3 | 0 | 13 | 0 | 0 | 15 | 0 | 0 | 160 |
| Shreveport | 2 | | 0 | 0 | 3 | 0 | 0 | 2 | 1 | 0 | 35 |

City reports for week ended November 23, 1940—Continued

| State and city | Diphtheria cases | Influenza | | Measles cases | Pneumonia deaths | Scarlet fever cases | Smallpox cases | Tuberculosis deaths | Typhoid fever cases | Whooping cough cases | Deaths, all causes |
|---------------------|------------------|-----------|--------|---------------|------------------|---------------------|----------------|---------------------|---------------------|----------------------|--------------------|
| | | Cases | Deaths | | | | | | | | |
| Oklahoma: | | | | | | | | | | | |
| Oklahoma City..... | 2 | 4 | 1 | 0 | 5 | 1 | 0 | 2 | 0 | 0 | 48 |
| Tulsa..... | 3 | | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 10 | 19 |
| Texas: | | | | | | | | | | | |
| Dallas..... | 2 | 1 | 0 | 0 | 3 | 4 | 0 | 2 | 0 | 0 | 60 |
| Fort Worth..... | 0 | | 1 | 9 | 1 | 3 | 0 | 3 | 0 | 0 | 42 |
| Galveston..... | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| Houston..... | 2 | | 1 | 0 | 2 | 0 | 0 | 7 | 0 | 0 | 57 |
| San Antonio..... | 1 | | 0 | 0 | 2 | 0 | 0 | 5 | 0 | 0 | 66 |
| Montana: | | | | | | | | | | | |
| Billings..... | 1 | | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 10 |
| Great Falls..... | 0 | | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 14 |
| Helena..... | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Missoula..... | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 10 |
| Idaho: | | | | | | | | | | | |
| Boise..... | 0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| Colorado: | | | | | | | | | | | |
| Colorado | | | | | | | | | | | |
| Springs..... | 0 | | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 1 | 18 |
| Denver..... | 2 | | 0 | 6 | 5 | 4 | 0 | 6 | 1 | 4 | 97 |
| Pueblo..... | 0 | | 0 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 9 |
| New Mexico: | | | | | | | | | | | |
| Albuquerque..... | 0 | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 11 |
| Utah: | | | | | | | | | | | |
| Salt Lake City..... | 0 | | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 7 | 28 |
| Washington: | | | | | | | | | | | |
| Seattle..... | 0 | | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 6 | 84 |
| Spokane..... | 0 | | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 4 | 34 |
| Tacoma..... | 0 | | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 35 |
| Oregon: | | | | | | | | | | | |
| Portland..... | 1 | 1 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 2 | 81 |
| Salem..... | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| California: | | | | | | | | | | | |
| Los Angeles..... | 2 | 29 | 0 | 4 | 6 | 18 | 0 | 12 | 1 | 65 | 347 |
| Sacramento..... | 1 | | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 2 | 27 |
| San Francisco..... | 0 | 2 | 0 | 1 | 4 | 3 | 0 | 5 | 2 | 64 | 177 |

| State and city | Meningitis, meningococcus | | Polio-myelitis cases | State and city | Meningitis, meningococcus | | Polio-myelitis cases |
|-------------------|---------------------------|--------|----------------------|------------------|---------------------------|--------|----------------------|
| | Cases | Deaths | | | Cases | Deaths | |
| Rhode Island: | | | | Missouri: | | | |
| Pawtucket..... | 1 | 0 | 0 | Kansas City..... | 0 | 0 | 2 |
| New York: | | | | St. Joseph..... | 1 | 0 | 0 |
| New York..... | 0 | 1 | 1 | North Dakota: | | | |
| New Jersey: | | | | Fargo..... | 0 | 0 | 4 |
| Newark..... | 1 | 0 | 0 | Nebraska: | | | |
| Pennsylvania: | | | | Omaha..... | 0 | 0 | 1 |
| Philadelphia..... | 0 | 0 | 1 | Kansas: | | | |
| Ohio: | | | | Topeka..... | 0 | 0 | 1 |
| Cincinnati..... | 0 | 0 | 1 | South Carolina: | | | |
| Cleveland..... | 0 | 0 | 3 | Florence..... | 0 | 1 | 0 |
| Indiana: | | | | Tennessee: | | | |
| Indianapolis..... | 0 | 0 | 1 | Knoxville..... | 0 | 0 | 1 |
| Illinois: | | | | Montana: | | | |
| Chicago..... | 0 | 0 | 9 | Great Falls..... | 0 | 0 | 1 |
| Springfield..... | 0 | 0 | 1 | Colorado: | | | |
| Michigan: | | | | Denver..... | 1 | 0 | 1 |
| Detroit..... | 0 | 1 | 0 | California: | | | |
| Minnesota: | | | | Los Angeles..... | 0 | 0 | 1 |
| Minneapolis..... | 0 | 0 | 3 | | | | |
| Iowa: | | | | | | | |
| Waterloo..... | 0 | 0 | 1 | | | | |

Encephalitis, epidemic or lethargic.—Cases: Springfield, Mass., 1; New York, 1.

Pellagra.—Cases: Winston-Salem, 1; Charleston, S. C., 1; Savannah, 1; Galveston, 1.

Typhus fever.—Cases: New York, 2; Raleigh, 2; Atlanta, 2; Savannah, 1; Tampa, 1; Covington, 1.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended November 9, 1940.—

During the week ended November 9, 1940, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada, as follows:

| Disease | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Total |
|-------------------------------|----------------------|-------------|---------------|--------|---------|----------|--------------|---------|------------------|-------|
| Cerebrospinal meningitis | | | | 1 | 3 | | | | 1 | 5 |
| Chickenpox | | 11 | 8 | 149 | 311 | 37 | 38 | | 81 | 763 |
| Diphtheria | | 4 | 2 | 29 | 1 | 5 | 2 | 5 | | 48 |
| Dysentery | | | | 2 | | | | | | 2 |
| Influenza | | 16 | | | 96 | | | | | 208 |
| Measles | | 82 | 1 | 23 | 170 | 55 | 57 | 46 | 36 | 470 |
| Mumps | | | | 18 | 41 | 11 | 2 | 17 | 5 | 94 |
| Pneumonia | | 4 | | | 26 | 2 | | | 7 | 40 |
| Poliomyelitis | | | | 1 | | | 1 | | | 2 |
| Scarlet fever | | 1 | 5 | 171 | 100 | 14 | 19 | 23 | 29 | 362 |
| Smallpox | | | | | | | | 1 | | 1 |
| Trachoma | | | | | | | | | 1 | 1 |
| Tuberculosis | 1 | 7 | 6 | 61 | 31 | 8 | 22 | 1 | | 137 |
| Typhoid and paratyphoid fever | | | | 18 | | | 1 | | 2 | 21 |
| Whooping cough | | 6 | 3 | 222 | 151 | 30 | 9 | 14 | 26 | 461 |

SWITZERLAND

*Notifiable diseases—July 1940.—*During the month of July 1940, cases of certain notifiable diseases were reported in Switzerland as follows:

| Disease | Cases | Disease | Cases |
|--------------------------|-------|-------------------|-------|
| Cerebrospinal meningitis | 34 | Mumps | 43 |
| Chickenpox | 103 | Paratyphoid fever | 8 |
| Diphtheria and croup | 33 | Poliomyelitis | 22 |
| Dysentery | 1 | Scarlet fever | 336 |
| German measles | 43 | Tuberculosis | 311 |
| Lethargic encephalitis | 2 | Typhoid fever | 7 |
| Malaria | 1 | Undulant fever | 18 |
| Measles | 623 | Whooping cough | 323 |

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—A cumulative table giving current information regarding the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS of November 29, 1940, pages 2246-2249. A similar table will appear in future issues of the PUBLIC HEALTH REPORTS for the last Friday of each month.

Yellow Fever

*Belgian Congo—Yatolet.—*On November 21, 1940, 1 case of yellow fever was reported at Yatolet, near Opala, south Stanleyville, Belgian Congo.